#4

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING DEPOSITED WITH THE UNITED STATES POSTAL SERVICE AS FIRST CLASS MAIL IN AN ENVELOPE ADDRESSED TO: ASSISTANT COMMISSIONER FOR PATENTS, WASHINGTON, D.C. 20231, ON THE DATE INDICATED BELOW.

By: Valair L. Benson Date: 4/8/02

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re:	Patent Application of Jonathan S. Levkoff et al.	:	Attention: Official Draftsman
Conf. No.:	6682	:	
Appln. No.:	10/020,856	:	Group Art Unit: 2171
Filed:	December 12, 2001	:	
For:	**METHOD AND SYSTEM FOR ASSIMILATION, INTEGRATION AND DEPLOYMENT OF ARCHITECTURAL, ENGINEERING AND CONSTRUCTION INFORMATION TECHNOLOGY**	:	Attorney Docket No. 10776-1U1

TRANSMITTAL OF FORMAL DRAWINGS

In response to the Notice to File Missing Parts of Nonprovisional Application filed Under 37 CFR 1.53(b) *Filing Date Granted*, enclosed are sixty-nine (69) sheets of drawings, Figures 1 through 28, concerning the above-identified application.

Prompt review and approval of the enclosed Formal Drawings are respectfully requested.

Respectfully submitted,

JONATHAN S. LEVKOFF et al.

April 8, 2002
Date

By: Clark Jablon

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CAJ:vlb
Enclosures

UCID

DataBuilt ID	Filter Type	Product Name	Series	Description	Material	Manufacturer	Internet Address	Telephone #
Microfiber Filtration Products						Johns Manville	http://www.jm.com	1.800.654.3103
(UCIDs not shown)	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 100 Series	100 Series	A fine diameter borosilicate (Type 475) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 200 Series	200 Series	A fine diameter borosilicate (Type 253) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 200 Series	200 Series	A fine diameter borosilicate (Type 253) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103
	Liquid	Micro Strand Glass Microfiber 200 Series	200 Series	A fine diameter borosilicate (Type 253) glass microfiber in bulk form which contains no binders or sizings	Non-continuous glass filaments - glass microfibers	Johns Manville	http://www.jm.com	1.800.654.3103

FIG. 1

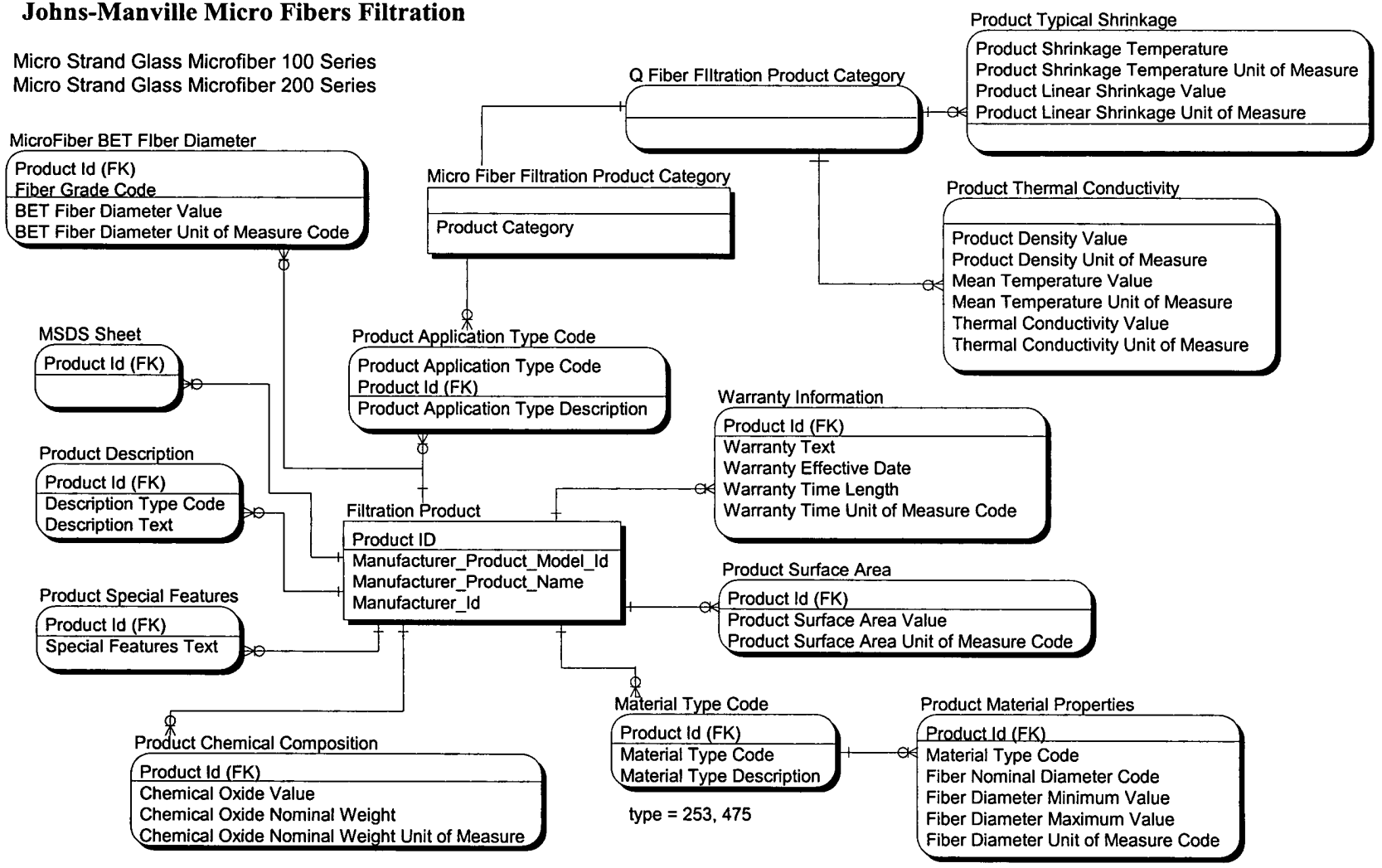

FIG. 2

File: F:\XML-firstcut\johns.manville.filtration.rev1.00.00.xml 11/30/01, 10:10:43PM

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1  <product id="" tag_id="">
2      <description tag_id="">
3          <manufacturer id="" tag_id="">
4              <product_id value="" tag_id="" />
5              <product_name tag_id=""> </product_name>
6          </manufacturer>
7          <category id="" tag_id="" />
8          <subcategory id="" tag_id="" />
9          <description_type value="" tag_id="">
10             <description_text tag_id=""> </description_text>
11         </description_type>
12     </description>
13     <uses tag_id="">
14         <usage_description tag_id=""> </usage_description>
15     </uses>
16     <chemical_composition tag_id="">
17         <chemical_oxide_value tag_id=""> </chemical_oxide_value>
18         <chemical_oxide_nominal_weight tag_id=""> </chemical_oxide_nominal_weight>
19         <chemical_oxide_nominal_weight_measurement_unit tag_id=""> </chemical_oxide_nominal_weight_measurement_unit>
20     </chemical_composition>
21     <special_features tag_id=""> </special_features>
22     <msds_data tag_id=""> </msds_data>
23     <warranty_info tag_id="">
24         <warranty_text tag_id=""> </warranty_text>
25         <effective_date value="" tag_id="" />
26         <duration value="" measure="" tag_id="" />
```

UCID

Fig. 3A-1

Title: Assimilation, Integration and Deployment [illegible]
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

```
    </warranty_info>
    <surface_area value="" measure="" tag_id="" />
    <material tag_id="">
        <material_type tag_id=""> </material_type>
        <material_description tag_id=""> </material_description>
        <material_properties tag_id="">
            <grade value="" tag_id="" />
            <nominal_diameter_type value="" tag_id="" />
            <diameter_min_val value="" tag_id="" />
            <diameter_max_val value="" tag_id="" />
            <diameter_measurement_unit tag_id=""> </diameter_measurement_unit>
        </material_properties>
    </material>
    <specifications tag_id="">
        <shrinkage tag_id="">
            <shrinkage_temp value="" tag_id="" />
            <shrinkage_temp_measurement_unit tag_id=""> </shrinkage_temp_measurement_unit>
            <linear_shrinkage value="" tag_id="" />
            <linear_shrinkage_measurement_unit tag_id=""> </linear_shrinkage_measurement_unit>
        </shrinkage>
        <thermal tag_id="">
            <product_density value="" tag_id="" />
            <product_density_measurement_unit tag_id=""> </product_density_measurement_unit>
            <mean_temperature value="" tag_id="" />
            <mean_temperature_measurement_unit tag_id=""> </mean_temperature_measurement_unit>
            <thermal_conductivity value="" tag_id="" />
            <thermal_conductivity_measurement_unit tag_id=""> </thermal_conductivity_measurement_unit>
        </thermal>
    </specifications>
</product>
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Fig. 3A-2

File: F:\XML-firstcut\johns.manville.filtration.rev1.00.00.dtd 11/30/01, 10:11:49PM

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<!ELEMENT category EMPTY >
<!ATTLIST category id CDATA #REQUIRED >
<!ATTLIST category tag_id CDATA #REQUIRED >

<!ELEMENT chemical_composition ( chemical_oxide_value, chemical_oxide_nominal_weight, chemical_oxide_nominal_weight_measurement_unit ) >
<!ATTLIST chemical_composition tag_id CDATA #REQUIRED >

<!ELEMENT chemical_oxide_nominal_weight EMPTY >
<!ATTLIST chemical_oxide_nominal_weight tag_id CDATA #REQUIRED >

<!ELEMENT chemical_oxide_nominal_weight_measurement_unit EMPTY >
<!ATTLIST chemical_oxide_nominal_weight_measurement_unit tag_id CDATA #REQUIRED >

<!ELEMENT chemical_oxide_value EMPTY >
<!ATTLIST chemical_oxide_value tag_id CDATA #REQUIRED >

<!ELEMENT description ( manufacturer, category, subcategory, description_type ) >
<!ATTLIST description tag_id CDATA #REQUIRED >

<!ELEMENT description_text EMPTY >
<!ATTLIST description_text tag_id CDATA #REQUIRED >

<!ELEMENT description_type ( description_text ) >
<!ATTLIST description_type tag_id CDATA #REQUIRED >
<!ATTLIST description_type value CDATA #REQUIRED >
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Fig. 3B-1

Title: Assimilation, Integration and Deployment
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

```
26
27 <!ELEMENT diameter_max_val EMPTY >
28 <!ATTLIST diameter_max_val tag_id CDATA #REQUIRED >
29 <!ATTLIST diameter_max_val value CDATA #REQUIRED >
30
31 <!ELEMENT diameter_measurement_unit EMPTY >
32 <!ATTLIST diameter_measurement_unit tag_id CDATA #REQUIRED >
33
34 <!ELEMENT diameter_min_val EMPTY >
35 <!ATTLIST diameter_min_val tag_id CDATA #REQUIRED >
36 <!ATTLIST diameter_min_val value CDATA #REQUIRED >
37
38 <!ELEMENT duration EMPTY >
39 <!ATTLIST duration measure CDATA #REQUIRED >
40 <!ATTLIST duration tag_id CDATA #REQUIRED >
41 <!ATTLIST duration value CDATA #REQUIRED >
42
43 <!ELEMENT effective_date EMPTY >
44 <!ATTLIST effective_date tag_id CDATA #REQUIRED >
45 <!ATTLIST effective_date value CDATA #REQUIRED >
46
47 <!ELEMENT grade EMPTY >
48 <!ATTLIST grade tag_id CDATA #REQUIRED >
49 <!ELEMENT category EMPTY >
50 <!ATTLIST category id CDATA #REQUIRED >
51 <!ATTLIST category tag_id CDATA #REQUIRED >
52
53 <!ELEMENT chemical_composition ( chemical_oxide_value, chemical_oxide_nominal_weight, chemical_oxide_nominal_weight_measurement_unit ) >
54 <!ATTLIST chemical_composition tag_id CDATA #REQUIRED >
55
56 <!ELEMENT chemical_oxide_nominal_weight EMPTY >
```

Fig. 3B-2

```
<!ATTLIST chemical_oxide_nominal_weight tag_id CDATA #REQUIRED >

<!ELEMENT chemical_oxide_nominal_weight_measurement_unit EMPTY >
<!ATTLIST chemical_oxide_nominal_weight_measurement_unit tag_id CDATA #REQUIRED >

<!ELEMENT chemical_oxide_value EMPTY >
<!ATTLIST chemical_oxide_value tag_id CDATA #REQUIRED >

<!ELEMENT description ( manufacturer, category, subcategory, description_type ) >
<!ATTLIST description tag_id CDATA #REQUIRED >

<!ELEMENT description_text EMPTY >
<!ATTLIST description_text tag_id CDATA #REQUIRED >

<!ELEMENT description_type ( description_text ) >
<!ATTLIST description_type tag_id CDATA #REQUIRED >
<!ATTLIST description_type value CDATA #REQUIRED >

<!ELEMENT diameter_max_val EMPTY >
<!ATTLIST diameter_max_val tag_id CDATA #REQUIRED >
<!ATTLIST diameter_max_val value CDATA #REQUIRED >

<!ELEMENT diameter_measurement_unit EMPTY >
<!ATTLIST diameter_measurement_unit tag_id CDATA #REQUIRED >

<!ELEMENT diameter_min_val EMPTY >
<!ATTLIST diameter_min_val tag_id CDATA #REQUIRED >
<!ATTLIST diameter_min_val value CDATA #REQUIRED >
```

Fig. 3C-1

Title: Assimilation, Integration and Deployment Technology System and Method
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

```
85
86 <!ELEMENT duration EMPTY >
87 <!ATTLIST duration measure CDATA #REQUIRED >
88 <!ATTLIST duration tag_id CDATA #REQUIRED >
89 <!ATTLIST duration value CDATA #REQUIRED >
90
91 <!ELEMENT effective_date EMPTY >
92 <!ATTLIST effective_date tag_id CDATA #REQUIRED >
93 <!ATTLIST effective_date value CDATA #REQUIRED >
94
95 <!ELEMENT grade EMPTY >
96 <!ATTLIST grade tag_id CDATA #REQUIRED >
97 <!ATTLIST grade value CDATA #REQUIRED >
98
99 <!ELEMENT linear_shrinkage EMPTY >
100 <!ATTLIST linear_shrinkage tag_id CDATA #REQUIRED >
101 <!ATTLIST linear_shrinkage value CDATA #REQUIRED >
102
103 <!ELEMENT linear_shrinkage_measurement_unit EMPTY >
104 <!ATTLIST linear_shrinkage_measurement_unit tag_id CDATA #REQUIRED >
105
106 <!ELEMENT manufacturer ( product_id, product_name ) >
107 <!ATTLIST manufacturer id CDATA #REQUIRED >
108 <!ATTLIST manufacturer tag_id CDATA #REQUIRED >
109
110 <!ELEMENT material ( material_type, material_description, material_properties ) >
111 <!ATTLIST material tag_id CDATA #REQUIRED >
112
```

Fig. 3C-2

File: F:\XML-firstcut\johns.manville.filtration.rev1.00.00.dtd 11/30/01, 10:11:49PM

```
<!ELEMENT material_description EMPTY >
<!ATTLIST material_description tag_id CDATA #REQUIRED >

<!ELEMENT material_properties ( grade, nominal_diameter_type, diameter_min_val, diameter_max_val, diameter_measurement_unit ) >
<!ATTLIST material_properties tag_id CDATA #REQUIRED >

<!ELEMENT material_type EMPTY >
<!ATTLIST material_type tag_id CDATA #REQUIRED >

<!ELEMENT mean_temperature EMPTY >
<!ATTLIST mean_temperature tag_id CDATA #REQUIRED >
<!ATTLIST mean_temperature value CDATA #REQUIRED >

<!ELEMENT mean_temperature_measurement_unit EMPTY >
<!ATTLIST mean_temperature_measurement_unit tag_id CDATA #REQUIRED >

<!ELEMENT msds_data EMPTY >
<!ATTLIST msds_data tag_id CDATA #REQUIRED >

<!ELEMENT nominal_diameter_type EMPTY >
<!ATTLIST nominal_diameter_type tag_id CDATA #REQUIRED >
<!ATTLIST nominal_diameter_type value CDATA #REQUIRED >

<!ELEMENT product ( description, uses, chemical_composition, special_features, msds_data, warranty_info, surface_area, material, specifications ) >
<!ATTLIST product id CDATA #REQUIRED >
<!ATTLIST product tag_id CDATA #REQUIRED >
```

Fig. 3D-1

```
139
140 <!ELEMENT product_density EMPTY >
141 <!ATTLIST product_density tag_id CDATA #REQUIRED >
142 <!ATTLIST product_density value CDATA #REQUIRED >
143
144 <!ELEMENT product_density_measurement_unit EMPTY >
145 <!ATTLIST product_density_measurement_unit tag_id CDATA #REQUIRED >
146
147 <!ELEMENT product_id EMPTY >
148 <!ATTLIST product_id tag_id CDATA #REQUIRED >
149 <!ATTLIST product_id value CDATA #REQUIRED >
150
151 <!ELEMENT product_name EMPTY >
152 <!ATTLIST product_name tag_id CDATA #REQUIRED >
153
154 <!ELEMENT shrinkage ( shrinkage_temp, shrinkage_temp_measurement_unit, linear_shrinkage, linear_shrinkage_measurement_unit ) >
155 <!ATTLIST shrinkage tag_id CDATA #REQUIRED >
156
157 <!ELEMENT shrinkage_temp EMPTY >
158 <!ATTLIST shrinkage_temp tag_id CDATA #REQUIRED >
159 <!ATTLIST shrinkage_temp value CDATA #REQUIRED >
160
161 <!ELEMENT shrinkage_temp_measurement_unit EMPTY >
162 <!ATTLIST shrinkage_temp_measurement_unit tag_id CDATA #REQUIRED >
163
164 <!ELEMENT special_features EMPTY >
165 <!ATTLIST special_features tag_id CDATA #REQUIRED >
166
167 <!ELEMENT specifications ( shrinkage, thermal ) >
168 <!ATTLIST specifications tag_id CDATA #REQUIRED >
```

Fig. 3D-2

```
169
170 <!ELEMENT subcategory EMPTY >
171 <!ATTLIST subcategory id CDATA #REQUIRED >
172 <!ATTLIST subcategory tag_id CDATA #REQUIRED >
173
174 <!ELEMENT surface_area EMPTY >
175 <!ATTLIST surface_area measure CDATA #REQUIRED >
176 <!ATTLIST surface_area tag_id CDATA #REQUIRED >
177 <!ATTLIST surface_area value CDATA #REQUIRED >
178
179 <!ELEMENT thermal ( product_density, product_density_measurement_unit, mean_temperature, mean_temperature_measurement_unit, thermal_conductivity, thermal_conductivity_measurement_unit ) >
180 <!ATTLIST thermal tag_id CDATA #REQUIRED >
181
182 <!ELEMENT thermal_conductivity EMPTY >
183 <!ATTLIST thermal_conductivity tag_id CDATA #REQUIRED >
184 <!ATTLIST thermal_conductivity value CDATA #REQUIRED >
185
186 <!ELEMENT thermal_conductivity_measurement_unit EMPTY >
187 <!ATTLIST thermal_conductivity_measurement_unit tag_id CDATA #REQUIRED >
188
189 <!ELEMENT usage_description EMPTY >
190 <!ATTLIST usage_description tag_id CDATA #REQUIRED >
191
192 <!ELEMENT uses ( usage_description ) >
193 <!ATTLIST uses tag_id CDATA #REQUIRED >
194
195 <!ELEMENT warranty_info ( warranty_text, effective_date, duration ) >
196 <!ATTLIST warranty_info tag_id CDATA #REQUIRED >
197
198 <!ELEMENT warranty_text EMPTY >
199 <!ATTLIST warranty_text tag_id CDATA #REQUIRED >
```

Fig. 3E

UCID

	A	B	C	D	E	F	G
1	DataBuilt ID (Item Number)	Filter Type	Product Name	Product Series	Product Description	Material	Filtration Grade
3	(Not Shown)	Air		Delta-Aire			
4							
5		Air	Delta-Aire Filtration Products	DA-SP - Self Pleat Media	Self-Pleat Media	{SP - Class 2 glass scrim} or {B2 - Class 2 non-woven polyester or nylon	DA-30-SP
6		Air	Delta-Aire Filtration Products	DA-SP - Self Pleat Media	Self-Pleat Media	{SP - Class 2 glass scrim} or {B2 - Class 2 non-woven polyester or nylon	DA-40-SP
7		Air	Delta-Aire Filtration Products	DA-SP - Self Pleat Media	Self-Pleat Media	{SP - Class 2 glass scrim} or {B2 - Class 2 non-woven polyester or nylon	DA-50-SP
8		Air	Delta-Aire Filtration Products	DA-SP - Self Pleat Media	Self-Pleat Media	{SP - Class 2 glass scrim} or {B2 - Class 2 non-woven polyester or nylon	DA-60-SP
9		Air	Delta-Aire Filtration Products	DPG Series - Differential Pressure Glass	Fiber glass air filter media	B2 - Class 2 non-woven polyester	DPG-82 B2
10		Air	Delta-Aire Filtration Products	DPG Series - Differential Pressure Glass	Fiber glass air filter media	B2 - Class 2 non-woven polyester	DPG-95 B2

FIG. 4A

Title: Assimilation, Integration and Deployment , , ,
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

	H	I	J	K	L	M
1	**Media Color**	**Thickness - in. (mm)**	**Weight - gm/ft² (gm/m²)**	**Air Permeability - in. W.G. (Pa)**	**Initial Flat Sheet Particle Efficiency - %**	**Filtration Application Atmospheric Efficiency - %**
3	Choice of Amber, Orange, Purple, Lime Green, Brown, Yellow, (Color coded to identify efficiency ranges)					
4						
5	Amber	0.16 (4.1)	11.0 (118.4)	0.03 (7.5)	4 - 8	30 -35
6	Amber	0.16 (4.1)	11.3 (121.6)	0.04 (10.0)	8-12	40-45
7	Amber	0.16 (4.1)	11.8 (127.0)	0.06 (14.9)	12-16	50-55
8	Orange	0.16 (4.1)	14.0 (150.7)	0.08 (19.9)	18-23	60-65
9	Purple	0.15 (3.8)	3.2 (34.4)	0.13 (32.4)	56-66	80-85
10	Lime Green	0.15 (3.8)	3.5 (37.7)	0.27 (67)	75-85	90-95

FIG. 4B

	O	P	Q	R	S	T
1	**Certifications**	**Roll Width - in. (cm)**	**Roll Length - lin. Ft. (lin. M)**	**Roll Cores - Chipboard ID - in. (cm)**	**Backings & Maximum Recommended Working Air Temperature - Degrees Fahrenheit (Degrees Celsius)**	**Produced As**
3						
4						
5	ISO-9002 Certified	12-25 (30.5-63.5)	500 (152)	2 (5.1)	250 (121) Note: this applies to {SP - Class 2 glass scrim} and {B2 - Class 2 non-woven polyester or nylon}	Roll of DA-SP series media bonded to a glass mat backing that is self-supporting when pleated and heat set
6	ISO-9002 Certified	12-25 (30.5-63.5)	500 (152)	2 (5.1)	250 (121) Note: this applies to {SP - Class 2 glass scrim} and {B2 - Class 2 non-woven polyester or nylon}	Roll of DA-SP series media bonded to a glass mat backing that is self-supporting when pleated and heat set
7	ISO-9002 Certified	12-25 (30.5-63.5)	500 (152)	2 (5.1)	250 (121) Note: this applies to {SP - Class 2 glass scrim} and {B2 - Class 2 non-woven polyester or nylon}	Roll of DA-SP series media bonded to a glass mat backing that is self-supporting when pleated and heat set
8	ISO-9002 Certified	12-25 (30.5-63.5)	500 (152)	2 (5.1)	250 (121) Note: this applies to {SP - Class 2 glass scrim} and {B2 - Class 2 non-woven polyester or nylon}	Roll of DA-SP series media bonded to a glass mat backing that is self-supporting when pleated and heat set
9	ISO-9002 Certified	12-72 (30-183)	1000 (305)	2 (5.1)	250 (121) Note: This applies to {B2 - Class 2 non-woven polyester}	Roll form, color coded for identification of efficiency ranges
10	ISO-9002 Certified	12-72 (30-183)	1000 (305)	2 (5.1)	250 (121) Note: This applies to {B2 - Class 2 non-woven polyester}	Roll form, color coded for identification of efficiency ranges

FIG. 4C

Title: Assimilation, Integration and Deployment ,,, Technology
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

	U	V	W	X	Y	Z	AA	AB
1	**Special Features**	**Specific Features Available Upon Request**	**Uses**	**Ratings**	**Manufacturer Information**	**Telephone #**	**Internet Address**	**Hazard Label**
3								
5	Neither the media binder nor Fiber Glass support microbial growth	Custom Widths and Lengths	Panel Filters, Filters for HVAC systems, Paint Spray Booths, FDA applications, Clean Rooms	Filter Media, by itself, will meet the UL Class rating when tested in accordance with UL900 "Standard for Air Filter Units"	Johns Manville	303-978-2000	http://www.jm.com	FBG-003
6	Neither the media binder nor Fiber Glass support microbial growth	Custom Widths and Lengths	Panel Filters, Filters for HVAC systems, Paint Spray Booths, FDA applications, Clean Rooms	Filter Media, by itself, will meet the UL Class rating when tested in accordance with UL900 "Standard for Air Filter Units"	Johns Manville	303-978-2000	http://www.jm.com	FBG-003
7	Neither the media binder nor Fiber Glass support microbial growth	Custom Widths and Lengths	Panel Filters, Filters for HVAC systems, Paint Spray Booths, FDA applications, Clean Rooms	Filter Media, by itself, will meet the UL Class rating when tested in accordance with UL900 "Standard for Air Filter Units"	Johns Manville	303-978-2000	http://www.jm.com	FBG-003
8	Neither the media binder nor Fiber Glass support microbial growth	Custom Widths and Lengths	Panel Filters, Filters for HVAC systems, Paint Spray Booths, FDA applications, Clean Rooms	Filter Media, by itself, will meet the UL Class rating when tested in accordance with UL900 "Standard for Air Filter Units"	Johns Manville	303-978-2000	http://www.jm.com	FBG-003
9	Neither the media binder nor Fiber Glass support microbial growth	Custom Widths and Lengths; additional grades are available to meet specific applications	Panel Filters, Filters for HVAC systems, Paint Spray Booths, FDA applications, Clean Rooms	Filter Media, by itself, will meet the UL Class rating when tested in accordance with UL900 "Standard for Air Filter Units"	Johns Manville	303-978-2000	http://www.jm.com	FBG-003
10	Neither the media binder nor Fiber Glass support microbial growth	Custom Widths and Lengths; additional grades are available to meet specific applications	Panel Filters, Filters for HVAC systems, Paint Spray Booths, FDA applications, Clean Rooms	Filter Media, by itself, will meet the UL Class rating when tested in accordance with UL900 "Standard for Air Filter Units"	Johns Manville	303-978-2000	http://www.jm.com	FBG-003

FIG. 4D

Category - Air Filtration
Johns-Manville Delta-Aire Air Filtration

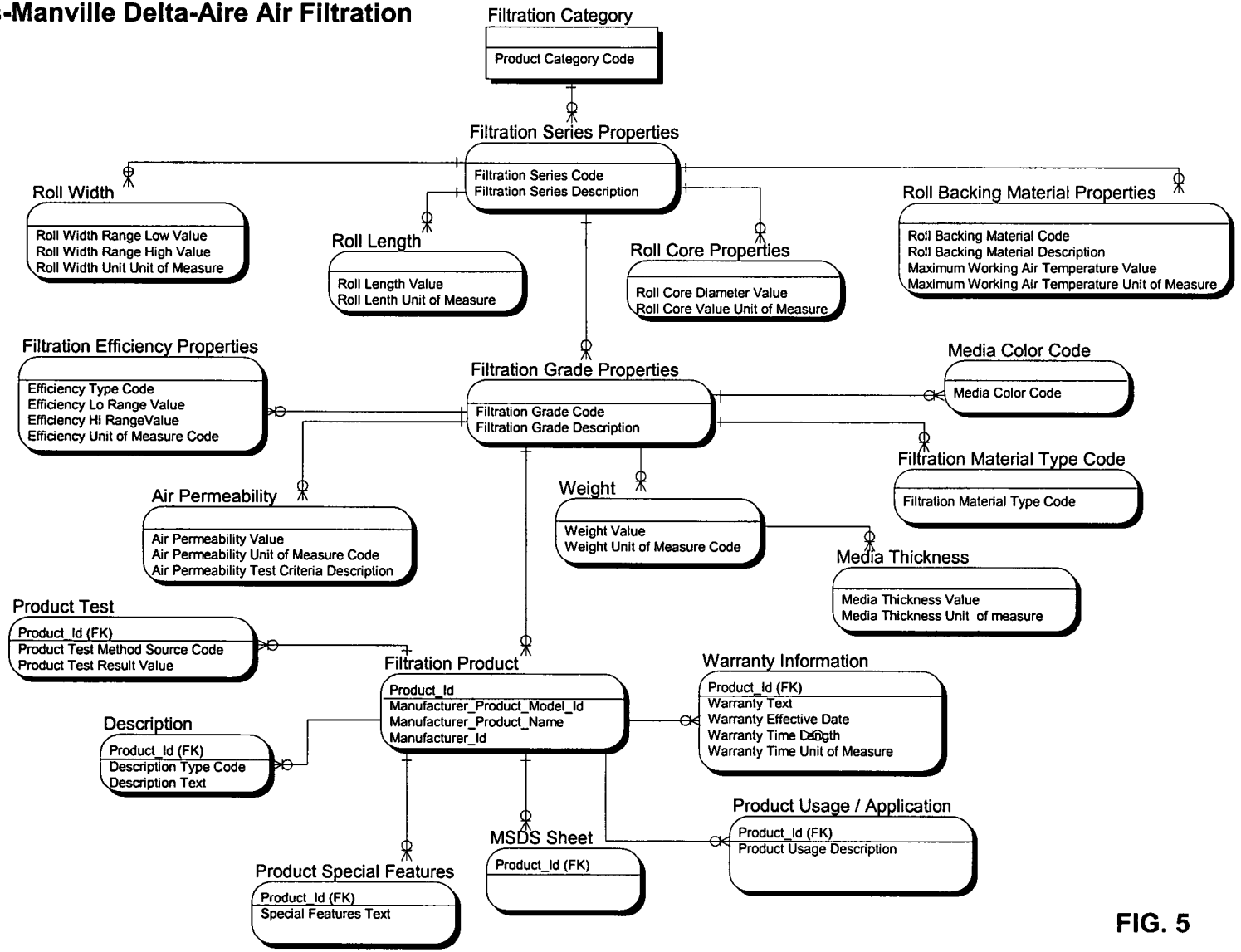


FIG. 5

Title: Assimilation, Integration and Deployment ... Technology
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

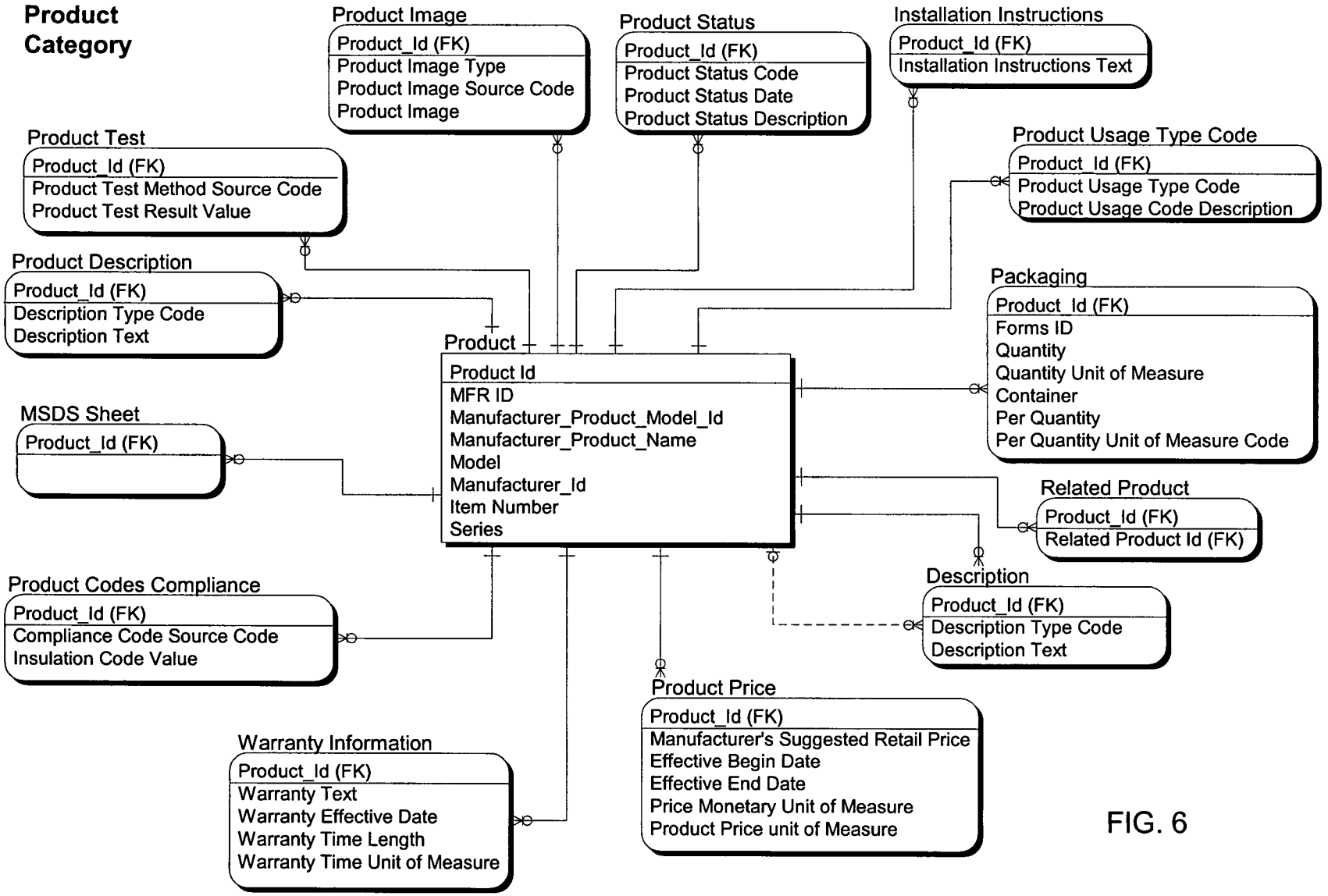


FIG. 6

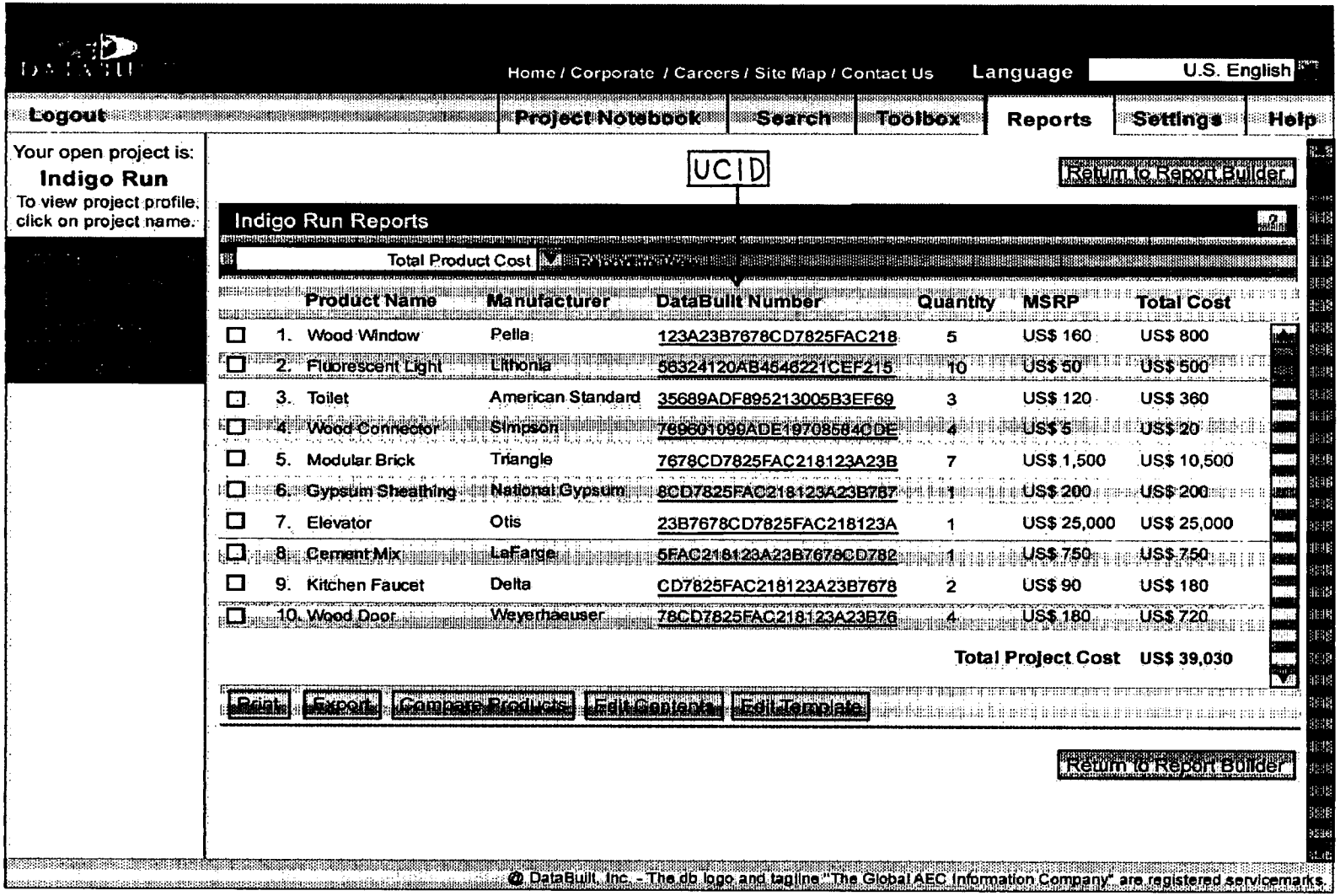


FIG. 7A

Title: Assimilation, Integration and Deployment ...
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

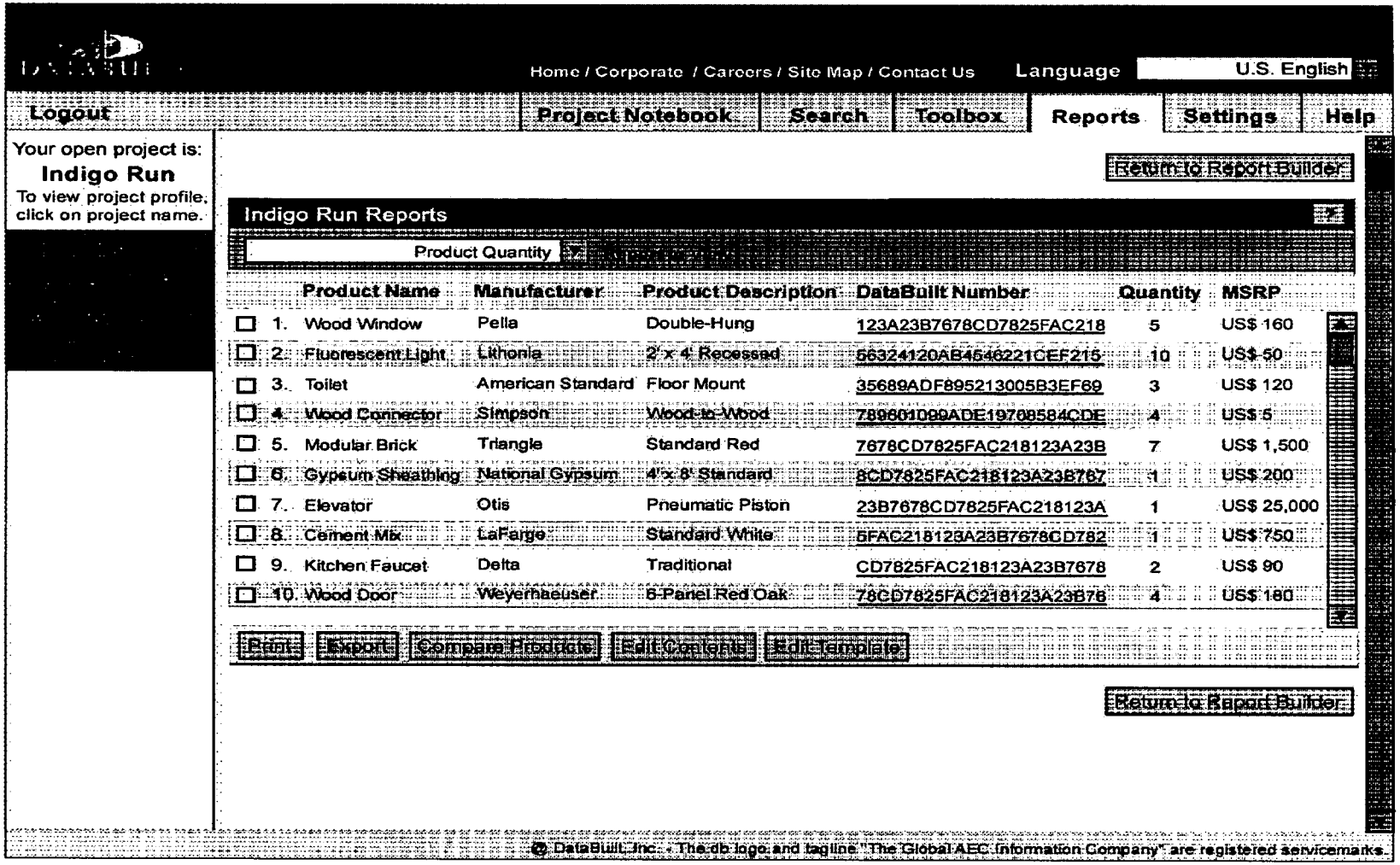


FIG. 7B

Title: Assimilation, Integration and Deployment ,,, Technology
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
Patent Application No. 10/020,856

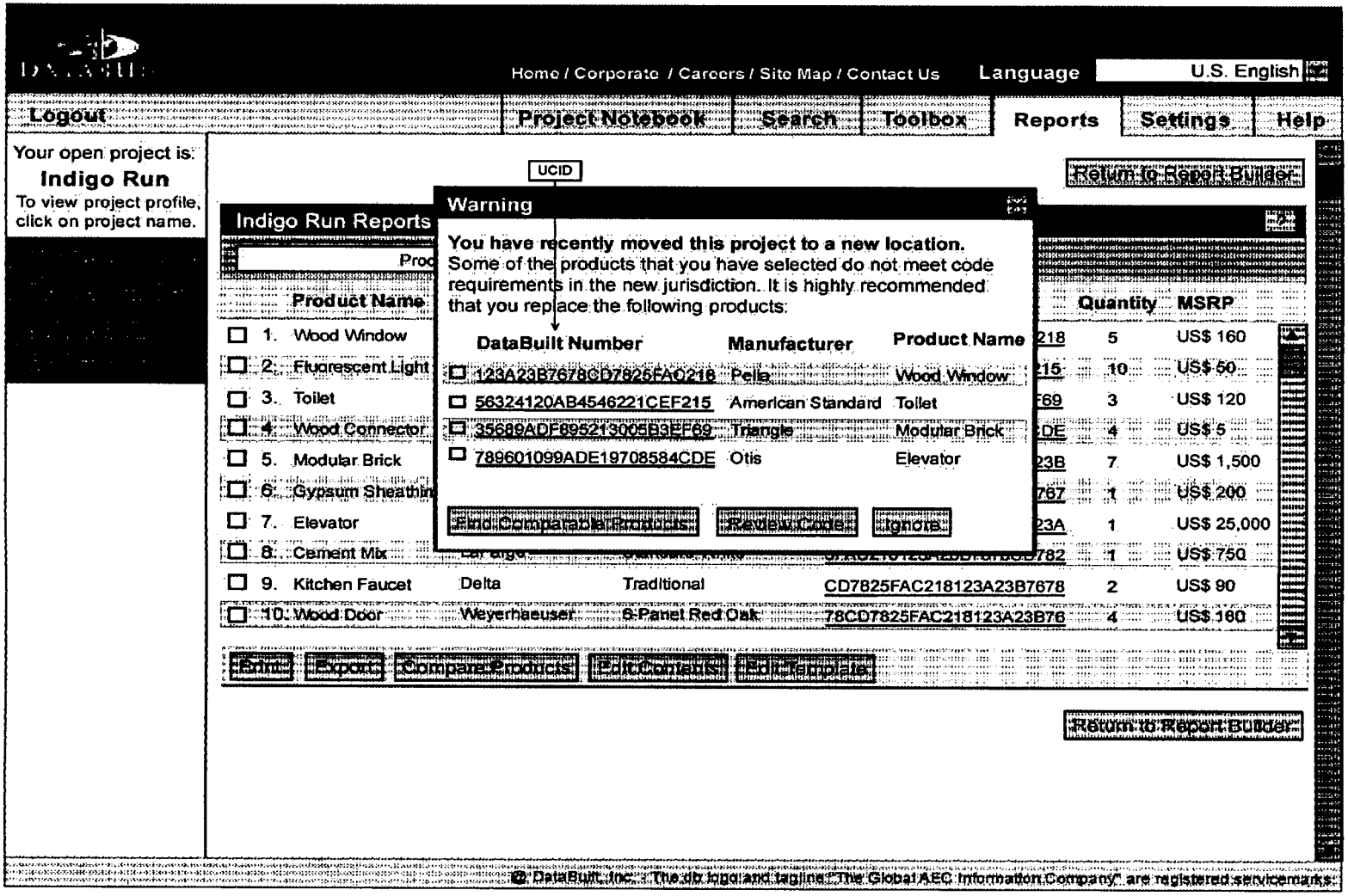


FIG. 7C

Title: Assimilation, Integration and Deployment ... Technology
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

"AEC Solutions 2002"

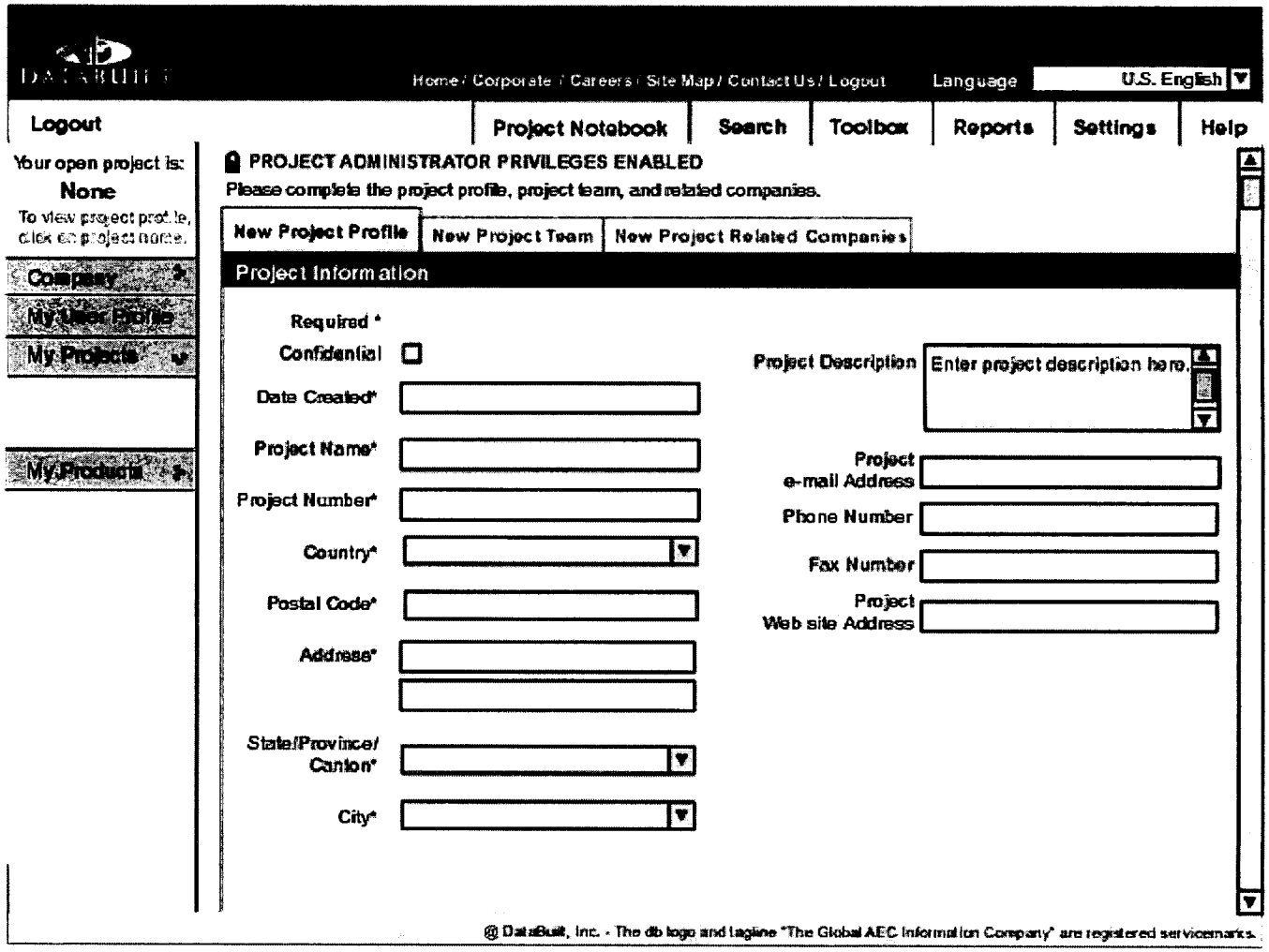


FIG 7D

"AEC Solutions 2002"

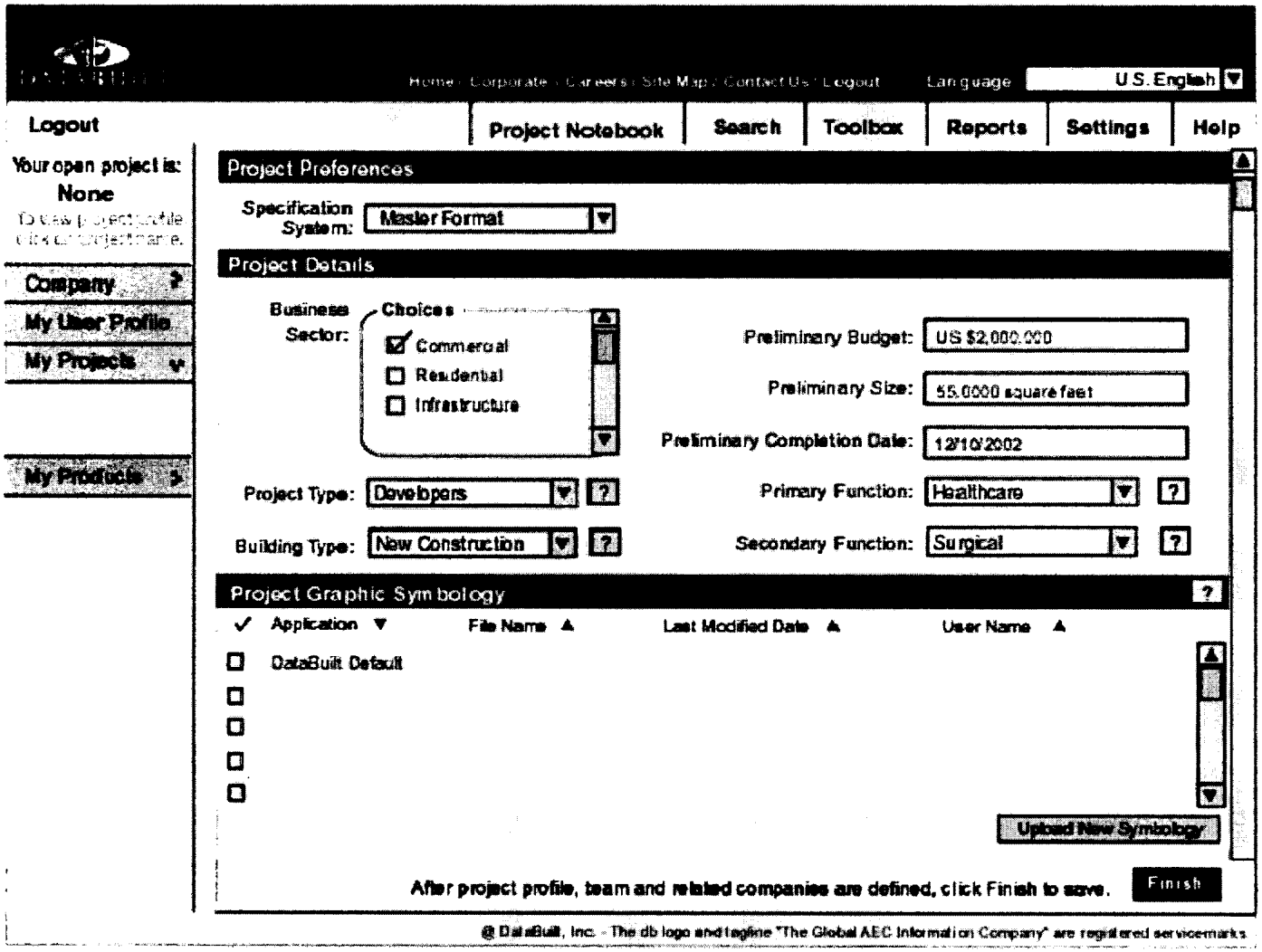


FIG. 7E

"AEC Solutions 2002"

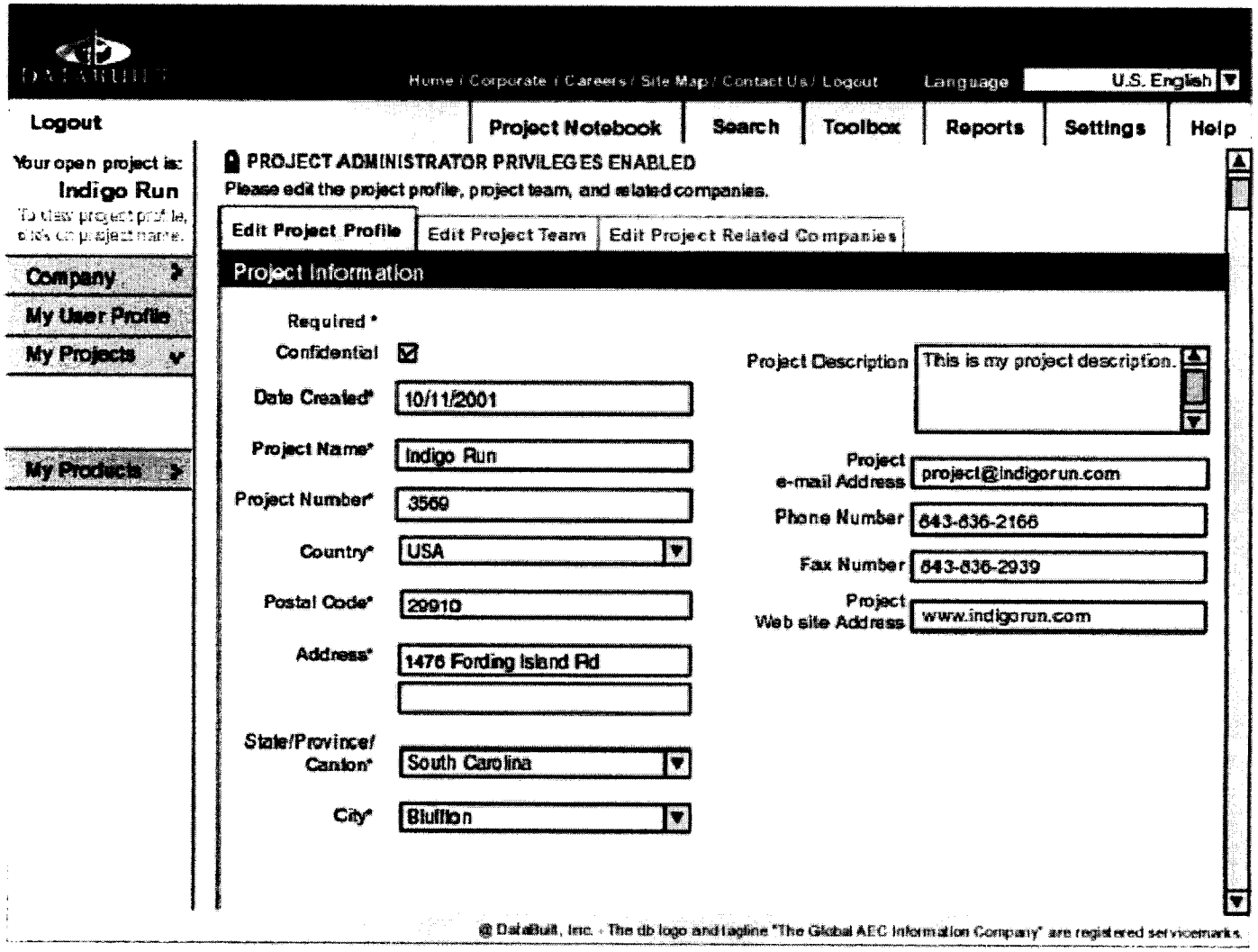


FIG. 7F

Title: Assimilation, Integration and Deployment ,,, Technology
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

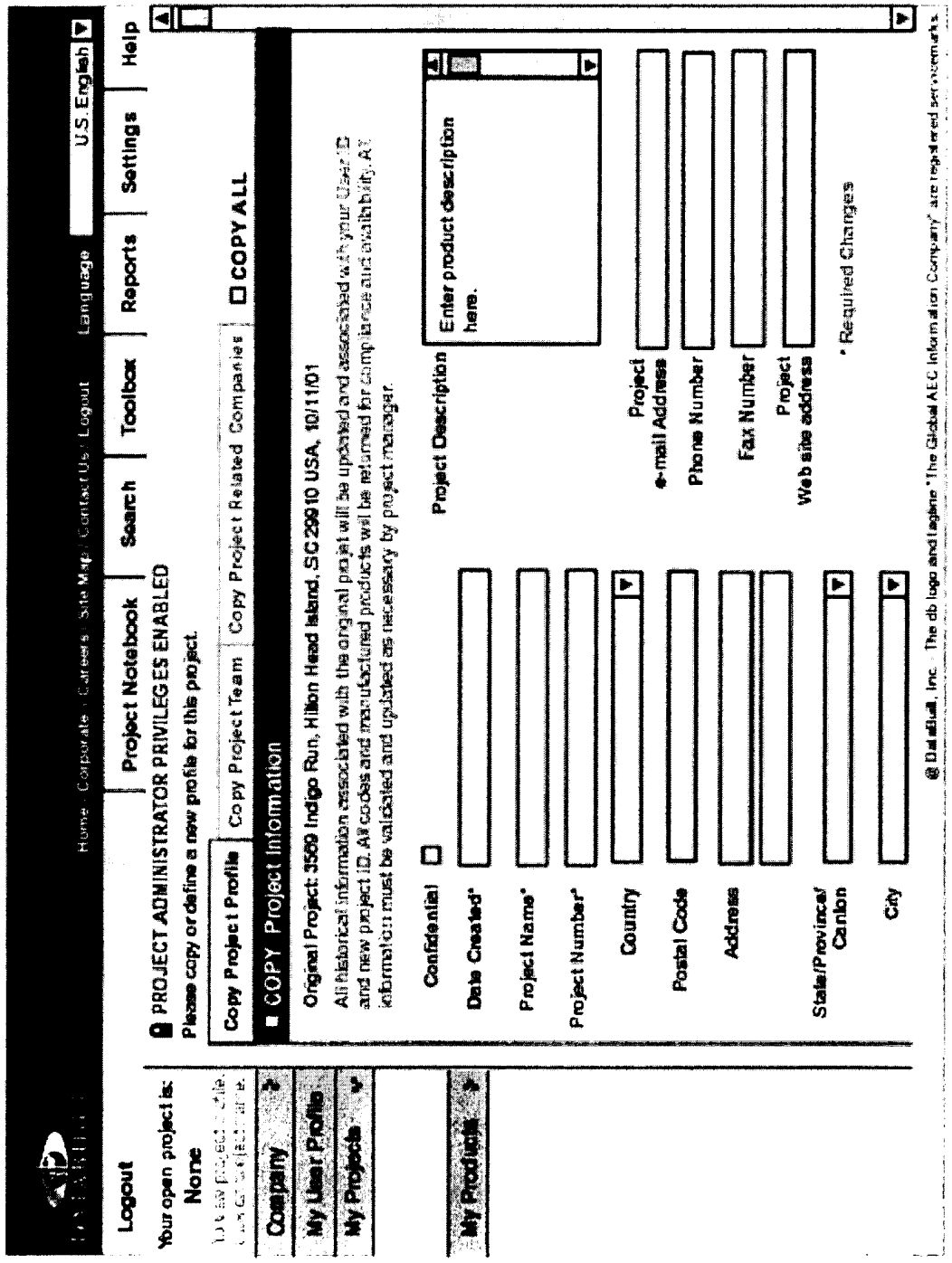

"AEC Solutions 2002"
Logout
Your open project is:
None
Company
My User Profile
My Projects
My Products
Home | Corporate | Careers | Site Map | Contact Us | Logout
Language
U.S. English
Project Notebook | Search | Toolbox | Reports | Settings | Help
PROJECT ADMINISTRATOR PRIVILEGES ENABLED
Please copy or define a new profile for this project.
Copy Project Profile | Copy Project Team | Copy Project Related Companies
COPY ALL
COPY Project Information
Original Project 3509 Indigo Run, Hilton Head Island, SC 29910 USA, 10/11/01
All historical information associated with the original project will be updated and associated with your Client ID and new project ID. All codes and manufactured products will be returned for compliance and availability. All information must be validated and updated as necessary by project manager.
Confidential
Date Created*
Project Name*
Project Number*
Country
Postal Code
Address
State/Province/Canton
City
Project Description
Enter product description here.
Project e-mail Address
Phone Number
Fax Number
Project Web site address
* Required Changes
© DataBuilt, Inc. The db logo and tagline "The Global AEC Information Company" are registered service marks.

FIG. 7G

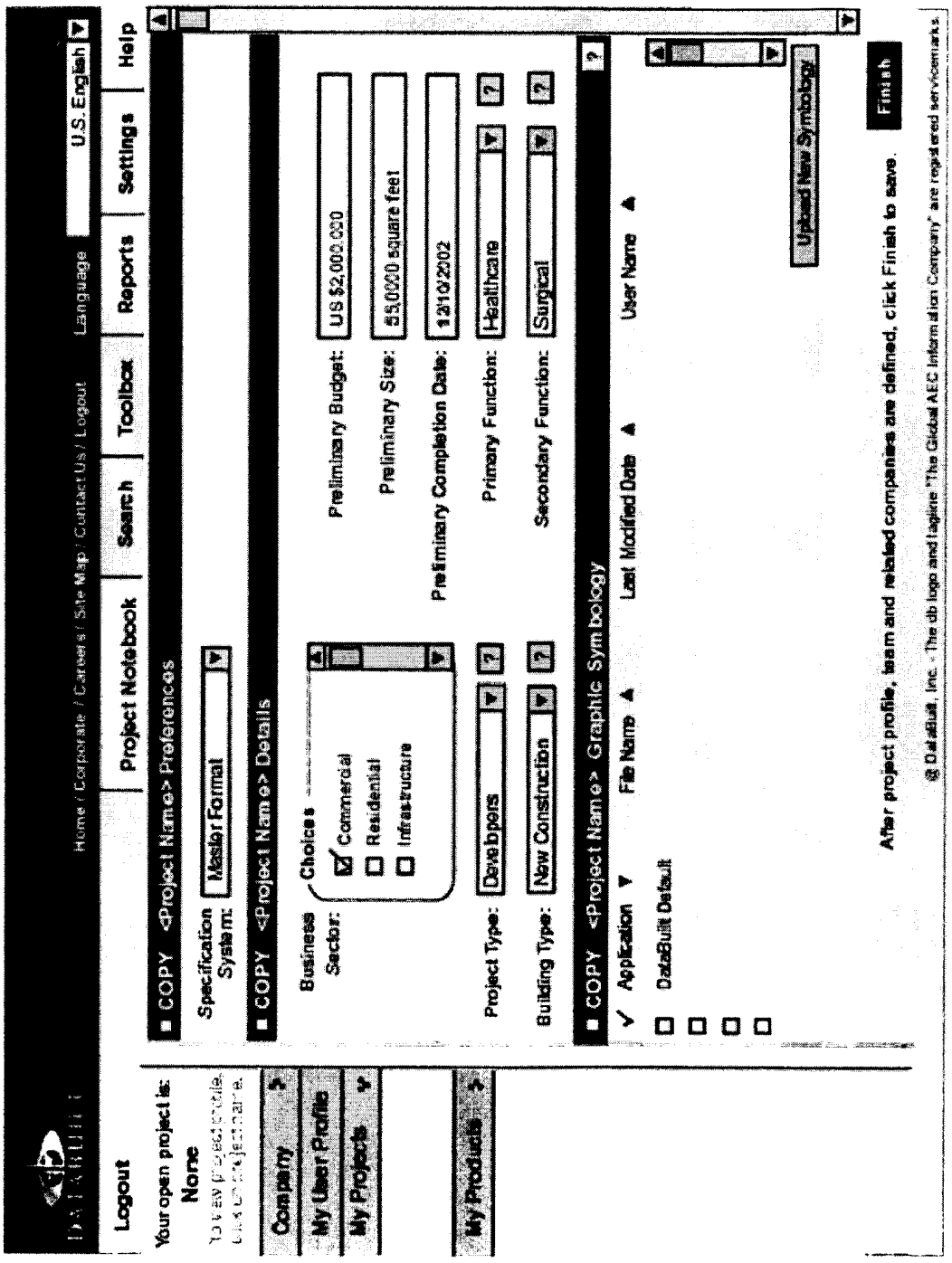

"AEC Solutions 2002"
Logout
Your open project is:
None
Company
My User Profile
My Projects
My Products
Home / Corporate / Careers / Site Map / Contact Us / Logout
Language
U.S. English
Project Notebook
Search
Toolbox
Reports
Settings
Help
COPY <Project Name> Preferences
Specification System:
Master Format
COPY <Project Name> Details
Business Sector:
Choices
Commercial
Residential
Infrastructure
Project Type:
Developers
Building Type:
New Construction
Preliminary Budget:
US $2,000,000
Preliminary Size:
50,0000 square feet
Preliminary Completion Date:
12/10/2002
Primary Function:
Healthcare
Secondary Function:
Surgical
COPY <Project Name> Graphic Symbology
Application
File Name
Last Modified Date
User Name
DataBuilt Default
Upload New Symbology
After project profile, team and related companies are defined, click Finish to save.
Finish
DataBuilt, Inc. - The db logo and tagline "The Global AEC Information Company" are registered servicemarks.

FIG. 7H

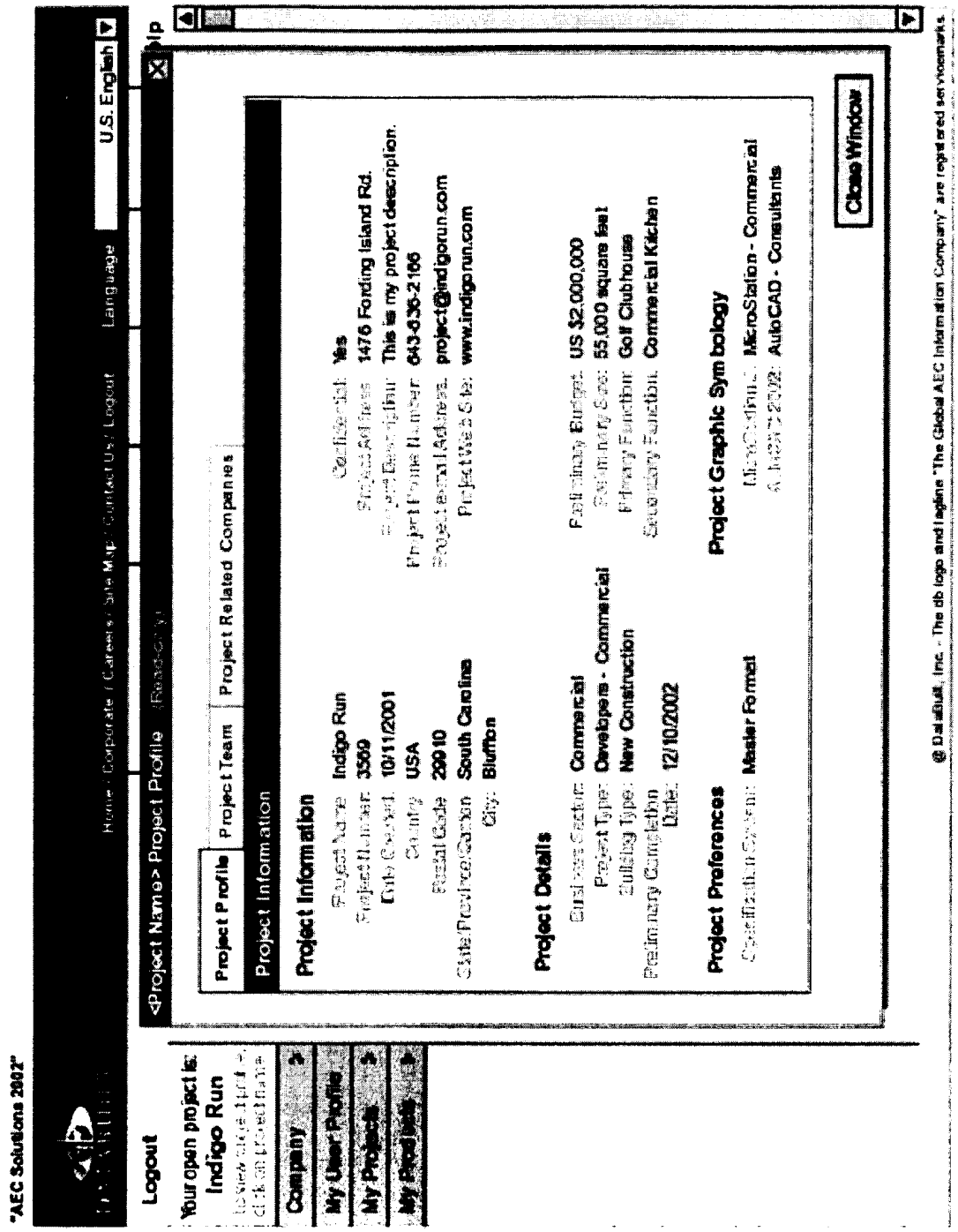

"AEC Solutions 2002"
Logout
Your open project is:
Indigo Run
Company
My User Profile
My Projects
My Preferences
Project Name> Project Profile
Project Profile
Project Team
Project Related Companies
Project Information
Project Information
Project Name Indigo Run
Project Number 3569
Date Created 10/11/2001
County USA
Postal Code 29910
State/Province/Canton South Carolina
City Bluffton
Project Details
Customer Feature Commercial
Project Type Developers - Commercial
Building Type New Construction
Preliminary Completion Date 12/10/2002
Project Preferences
Specification System Master Format
Project Graphic Symbology
Use MicroStation - Commercial
Use AutoCAD - Consultants
Close Window
U.S. English
Language
Home | Corporate | Careers | Site Map | Contact Us | Logout
Help
© Dal aBuilt, Inc. - The db logo and tagline "The Global AEC Information Company" are registered servicemarks.

FIG. 7I

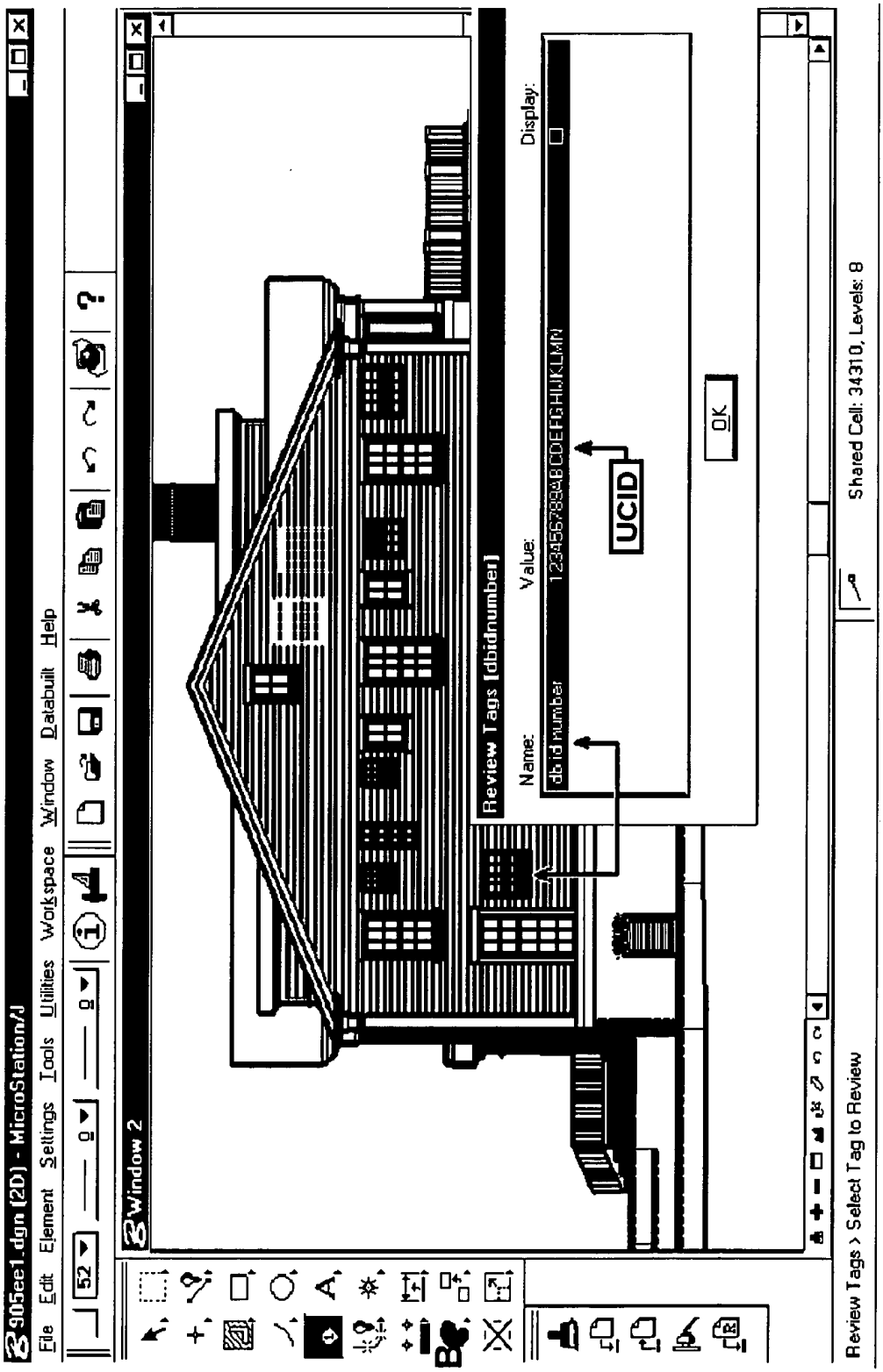

905ee1.dgn (2D) - MicroStation/J
File Edit Element Settings Tools Utilities Workspace Window Databuilt Help
Window 2
Review Tags [dbidnumber]
Name:
Value:
Display:
dbid number
UCID
OK
Review Tags > Select Tag to Review
Shared Cell: 34310, Levels: 8

FIG. 8A

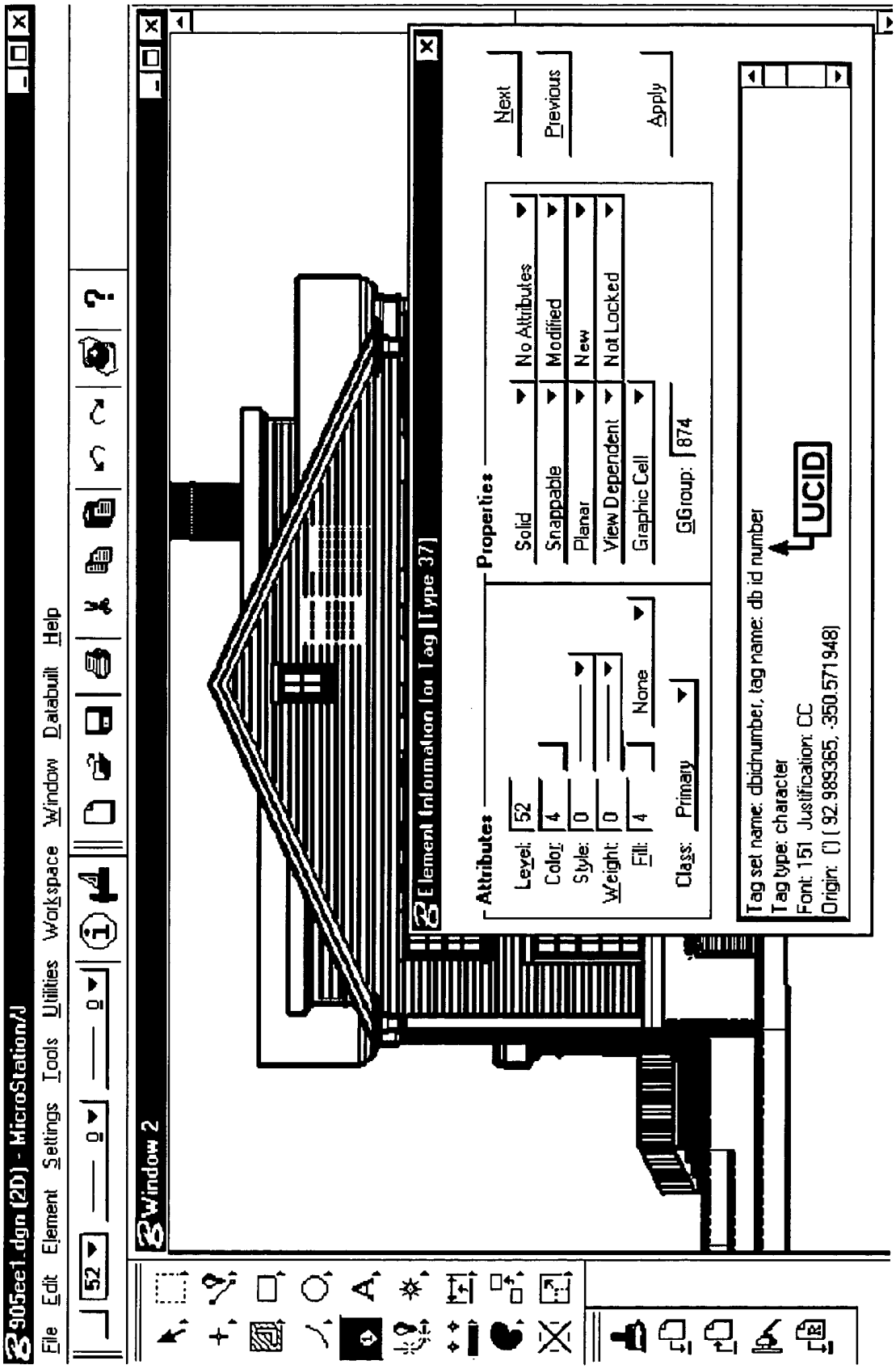

905ee1.dgn (2D) - MicroStation/J
File Edit Element Settings Tools Utilities Workspace Window Databuilt Help
Window 2
Element Information for Tag [Type 37]
Attributes
Level: 52
Color: 4
Style: 0
Weight: 0
Fill: 4
None
Class: Primary
Properties
Solid
No Attributes
Snappable
Modified
Planar
New
View Dependent
Not Locked
Graphic Cell
GGroup: 874
Next
Previous
Apply
Tag set name: dbidnumber, tag name: db id number
Tag type: character
Font: 151 Justification: CC
Origin: ( ) (92.989365, -350.571948)
UCID

FIG. 8B

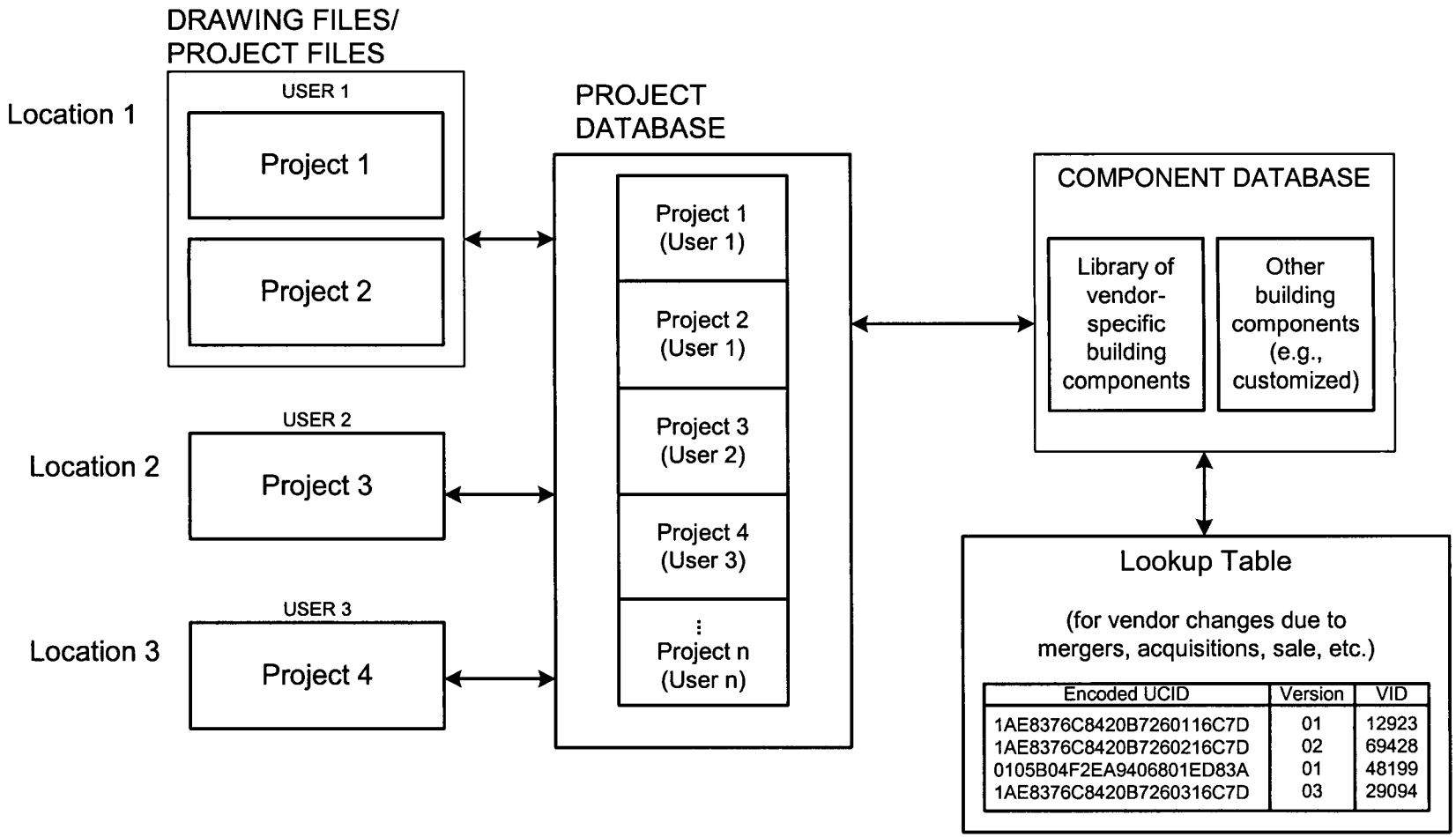


FIG. 9

	Manufacturer	Product Name	DataBuilt Internal ID		Barcode				External Object Identifier (EOI)
			Mfr ID	Product ID	Mfr ID	Product ID	Version	Checksum	
1	General Electric	3-inch Downlight	4992408	354622628234	4C2D98	529127E18A	00	73A5F	1.5.62.5.1.6.2.64.13.8.42.1.5.6.5
2	Lithonia	Recessed Accent	842562	354622628234	0CDB42	529127E18A	00	F62D8	1.5.62.5.1.6.2.64.13.8.39.1.5.5.4
3	Concord Lighting	Recessed Spot	3467626	354622628234	34E96A	529127E18A	01	A5162	1.5.62.5.1.6.2.64.13.8.42.1.5.6.5
4	Lightolier	In-Ceiling Spot	14551	12314819810	0038D7	2DE053CE2	00	251E5	1.5.62.5.1.6.2.64.13.0.42.0.7.2.0
5	Lightolier	Recessed Hi-Hat	14551	29348577299	0038D7	06D54FC013	00	82335	1.5.62.5.1.6.2.64.13.8.42.1.5.6.9
6	Champion Lighting	3 Inch Spot	241563	99274902850	03AF9B	171D3ECD42	00	D9391	1.5.62.5.1.6.2.64.13.6.42.1.5.6.9

VID

GCID

unencoded UCID

encoded UCID

FIG. 10

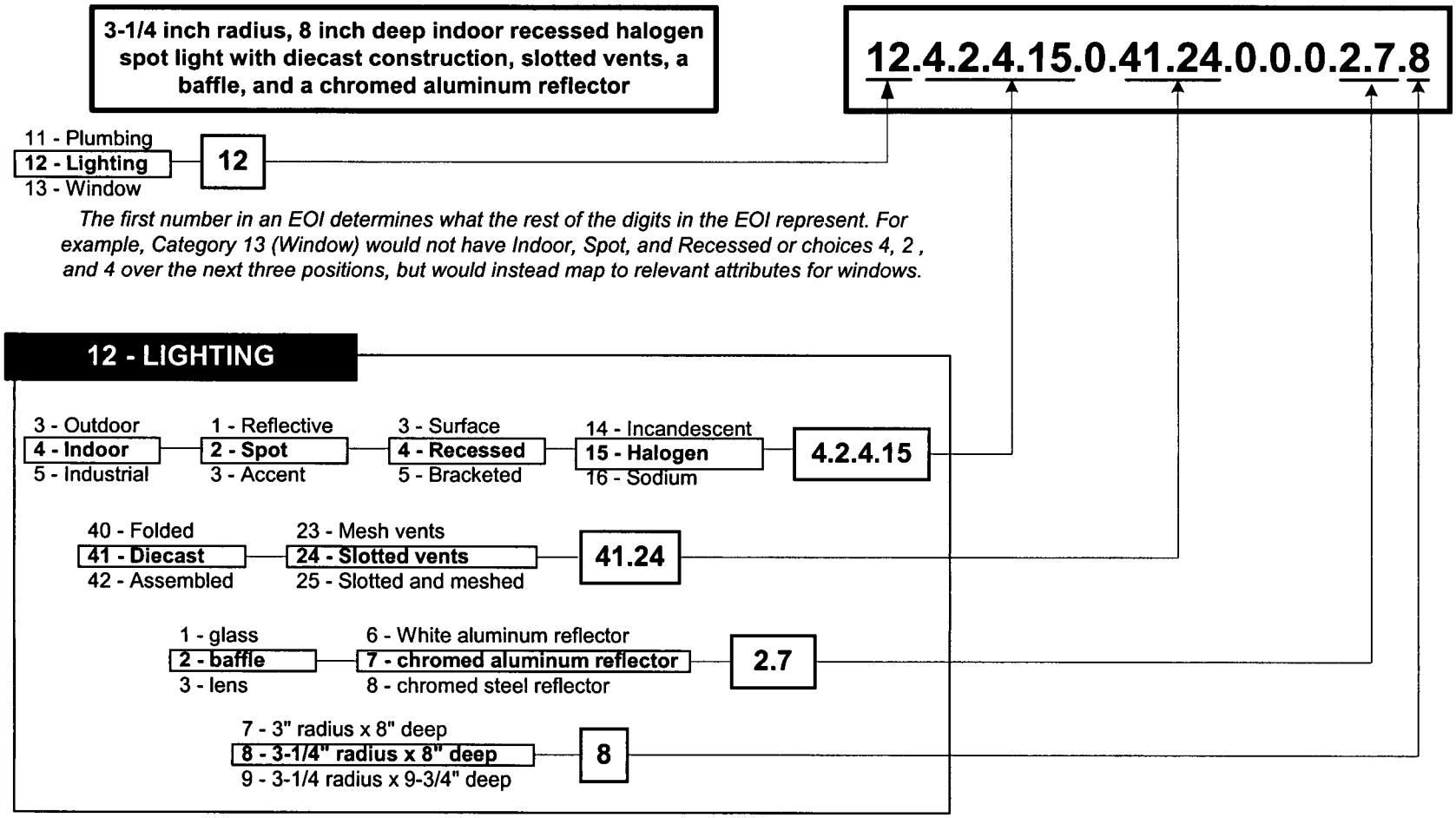


FIG. 11

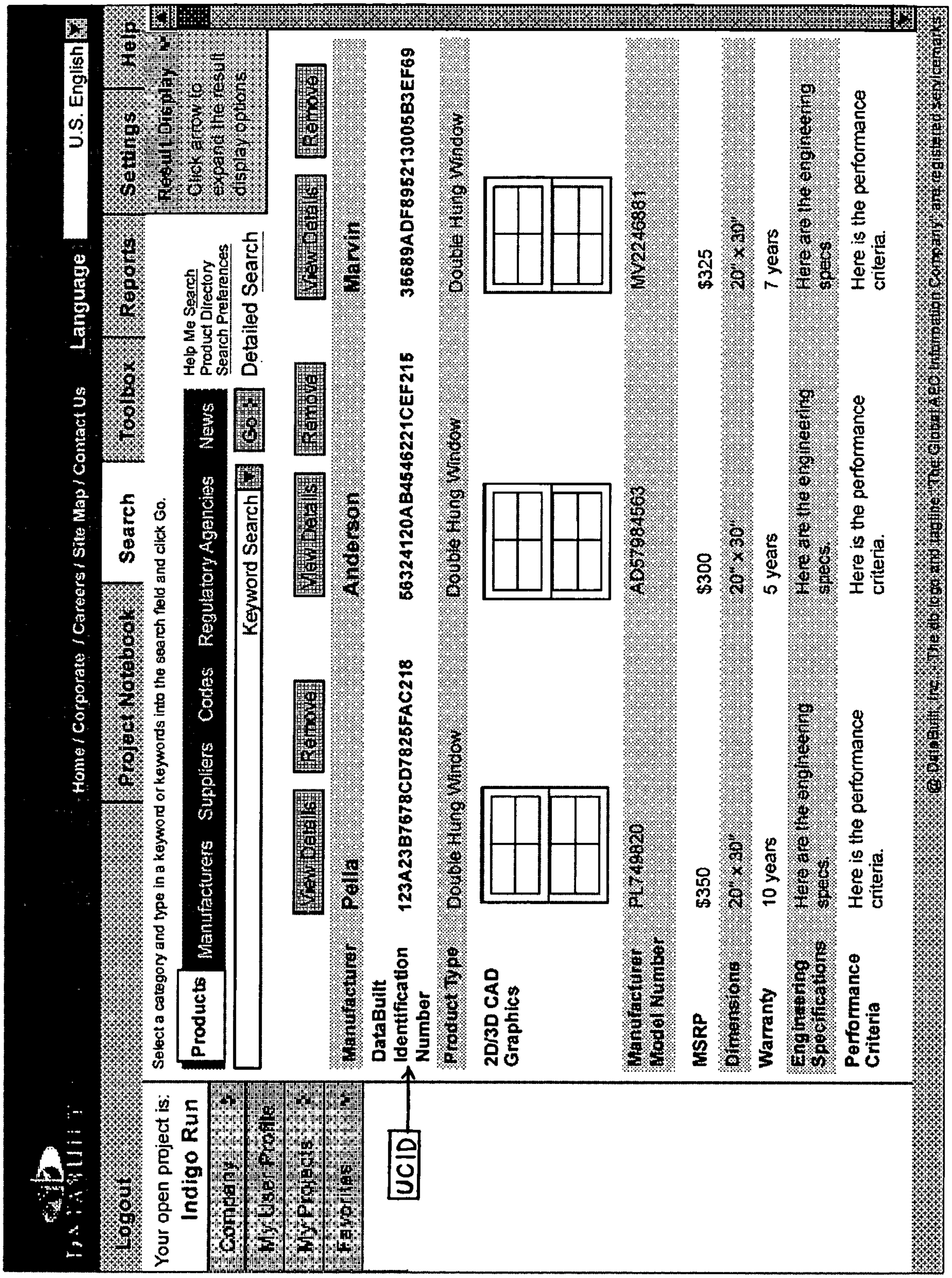

Home / Corporate / Careers / Site Map / Contact Us
Language
U.S. English
Logout
Project Notebook
Search
Toolbox
Reports
Settings
Help
Your open project is:
Indigo Run
Company
My User Profile
My Projects
Favorites
Select a category and type in a keyword or keywords into the search field and click Go.
Products
Manufacturers
Suppliers
Codes
Regulatory Agencies
News
Keyword Search
Go
Help Me Search
Product Directory
Search Preferences
Detailed Search
Result Display
Click arrow to expand the result display options.
UCID
View Details
Remove
Manufacturer
Pella
Anderson
Marvin
DataBuilt Identification Number
123A23B7678CD7825FAC218
56324120AB4546221CEF215
35689ADF895213005B3EF69
Product Type
Double Hung Window
2D/3D CAD Graphics
Manufacturer Model Number
PL749820
AD57984563
MV2246881
MSRP
$350
$300
$325
Dimensions
20" x 30"
Warranty
10 years
5 years
7 years
Engineering Specifications
Here are the engineering specs.
Performance Criteria
Here is the performance criteria.

FIG. 12

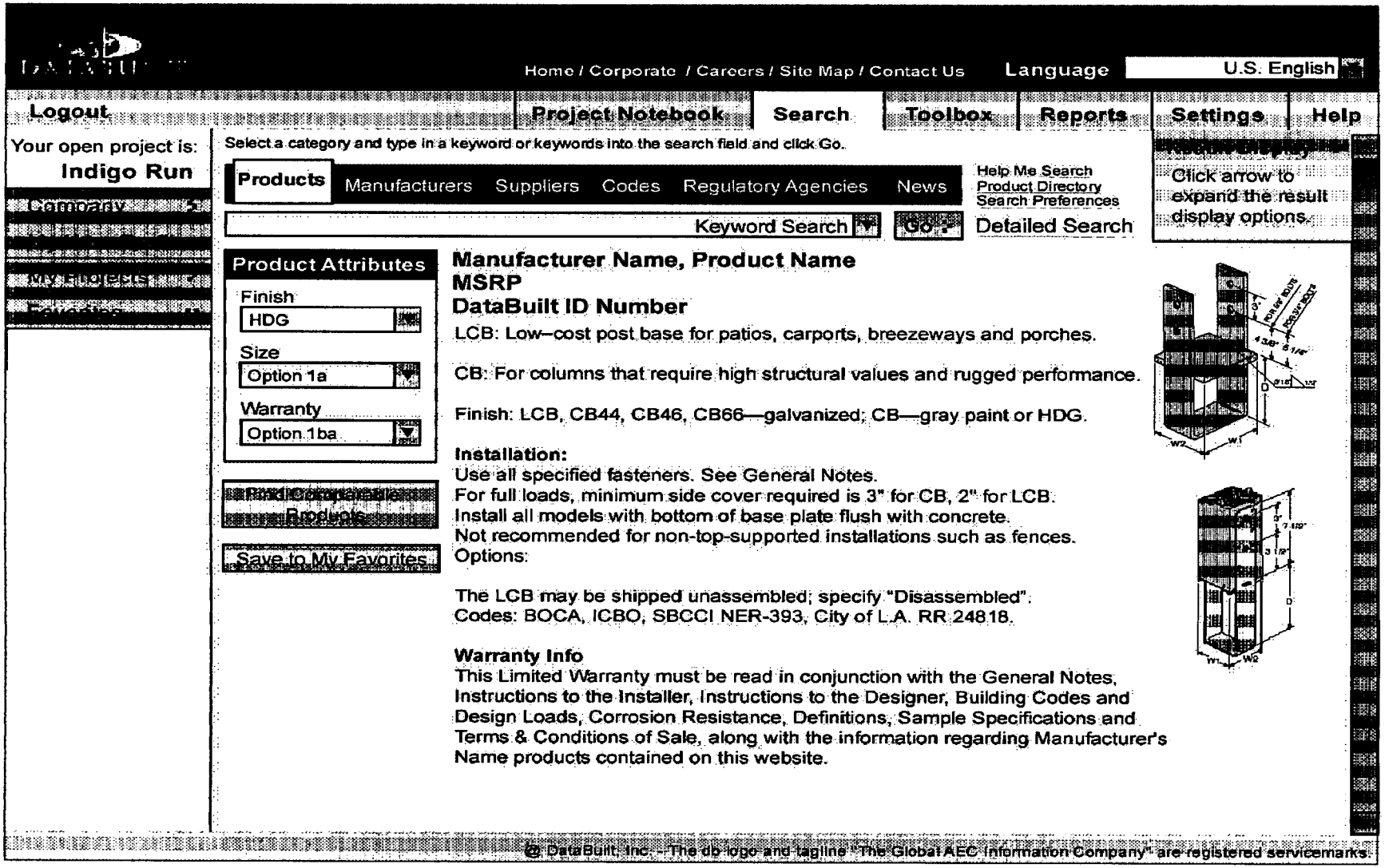


FIG. 13

Title: Assimilation, Integration and Deployment ... Technology ... Tools ... Systems ... and ... Methods ...
Inventors: Jonathan S. Levkoff et al.
Attorney Docket No. 10776-1U1 Cust. No. 570
U.S. Patent Application No. 10/020,856

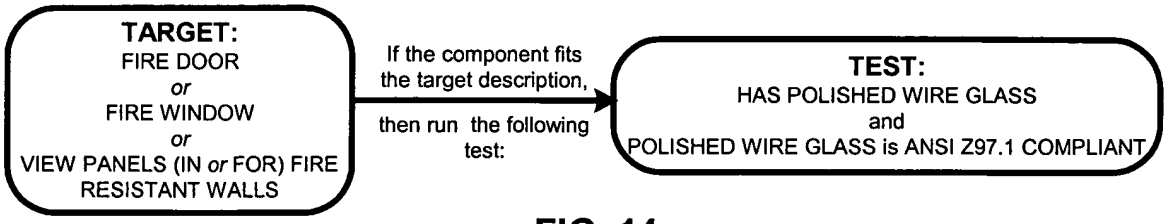

TARGET:
FIRE DOOR
or
FIRE WINDOW
or
VIEW PANELS (IN or FOR) FIRE RESISTANT WALLS
If the component fits the target description,
then run the following test:
TEST:
HAS POLISHED WIRE GLASS
and
POLISHED WIRE GLASS is ANSI Z97.1 COMPLIANT

FIG. 14

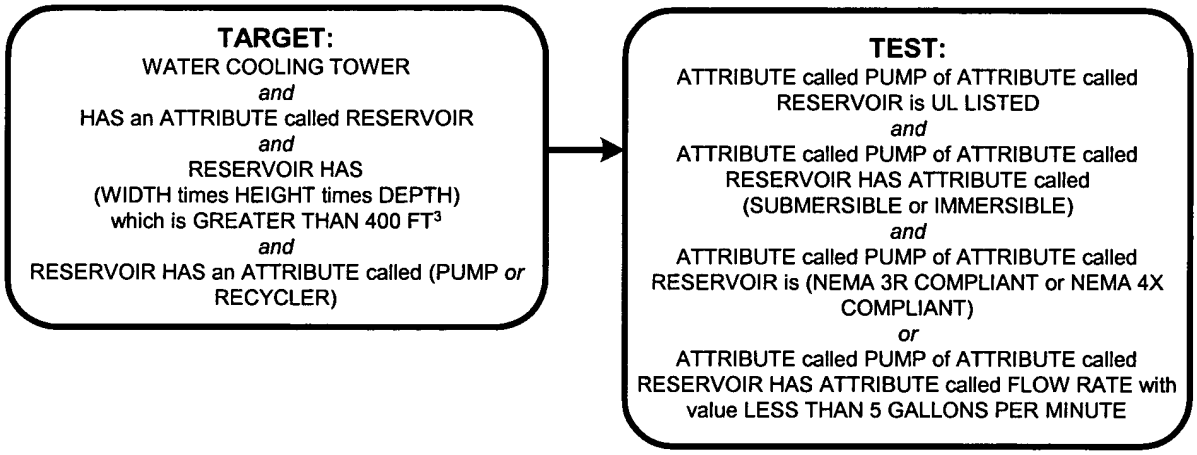

TARGET:
WATER COOLING TOWER
and
HAS an ATTRIBUTE called RESERVOIR
and
RESERVOIR HAS
(WIDTH times HEIGHT times DEPTH)
which is GREATER THAN 400 FT3
and
RESERVOIR HAS an ATTRIBUTE called (PUMP or RECYCLER)
TEST:
ATTRIBUTE called PUMP of ATTRIBUTE called RESERVOIR is UL LISTED
and
ATTRIBUTE called PUMP of ATTRIBUTE called RESERVOIR HAS ATTRIBUTE called (SUBMERSIBLE or IMMERSIBLE)
and
ATTRIBUTE called PUMP of ATTRIBUTE called RESERVOIR is (NEMA 3R COMPLIANT or NEMA 4X COMPLIANT)
or
ATTRIBUTE called PUMP of ATTRIBUTE called RESERVOIR HAS ATTRIBUTE called FLOW RATE with value LESS THAN 5 GALLONS PER MINUTE

FIG. 15

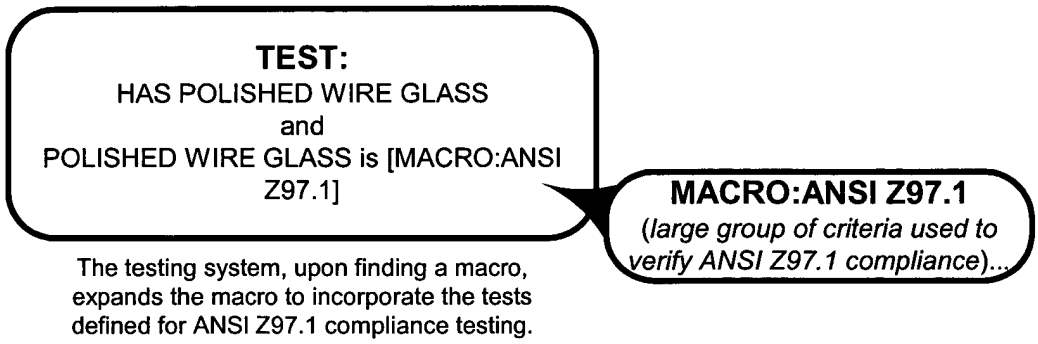

TEST:
HAS POLISHED WIRE GLASS
and
POLISHED WIRE GLASS is [MACRO:ANSI Z97.1]
MACRO:ANSI Z97.1
(large group of criteria used to verify ANSI Z97.1 compliance)...
The testing system, upon finding a macro, expands the macro to incorporate the tests defined for ANSI Z97.1 compliance testing.

FIG. 16

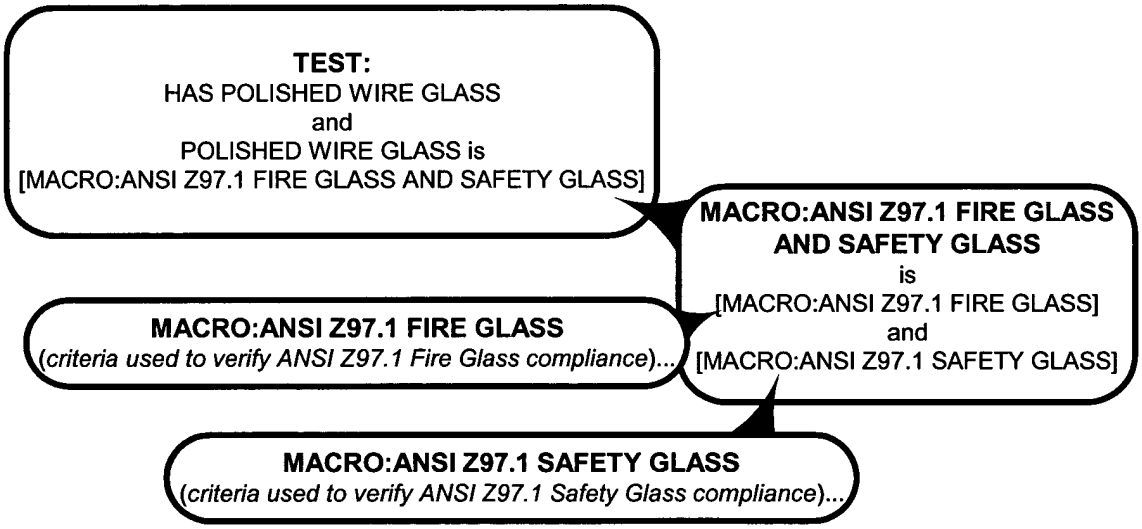

TEST:
HAS POLISHED WIRE GLASS
and
POLISHED WIRE GLASS is
[MACRO:ANSI Z97.1 FIRE GLASS AND SAFETY GLASS]
MACRO:ANSI Z97.1 FIRE GLASS AND SAFETY GLASS
is
[MACRO:ANSI Z97.1 FIRE GLASS]
and
[MACRO:ANSI Z97.1 SAFETY GLASS]
MACRO:ANSI Z97.1 FIRE GLASS
(criteria used to verify ANSI Z97.1 Fire Glass compliance)...
MACRO:ANSI Z97.1 SAFETY GLASS
(criteria used to verify ANSI Z97.1 Safety Glass compliance)...

FIG. 17

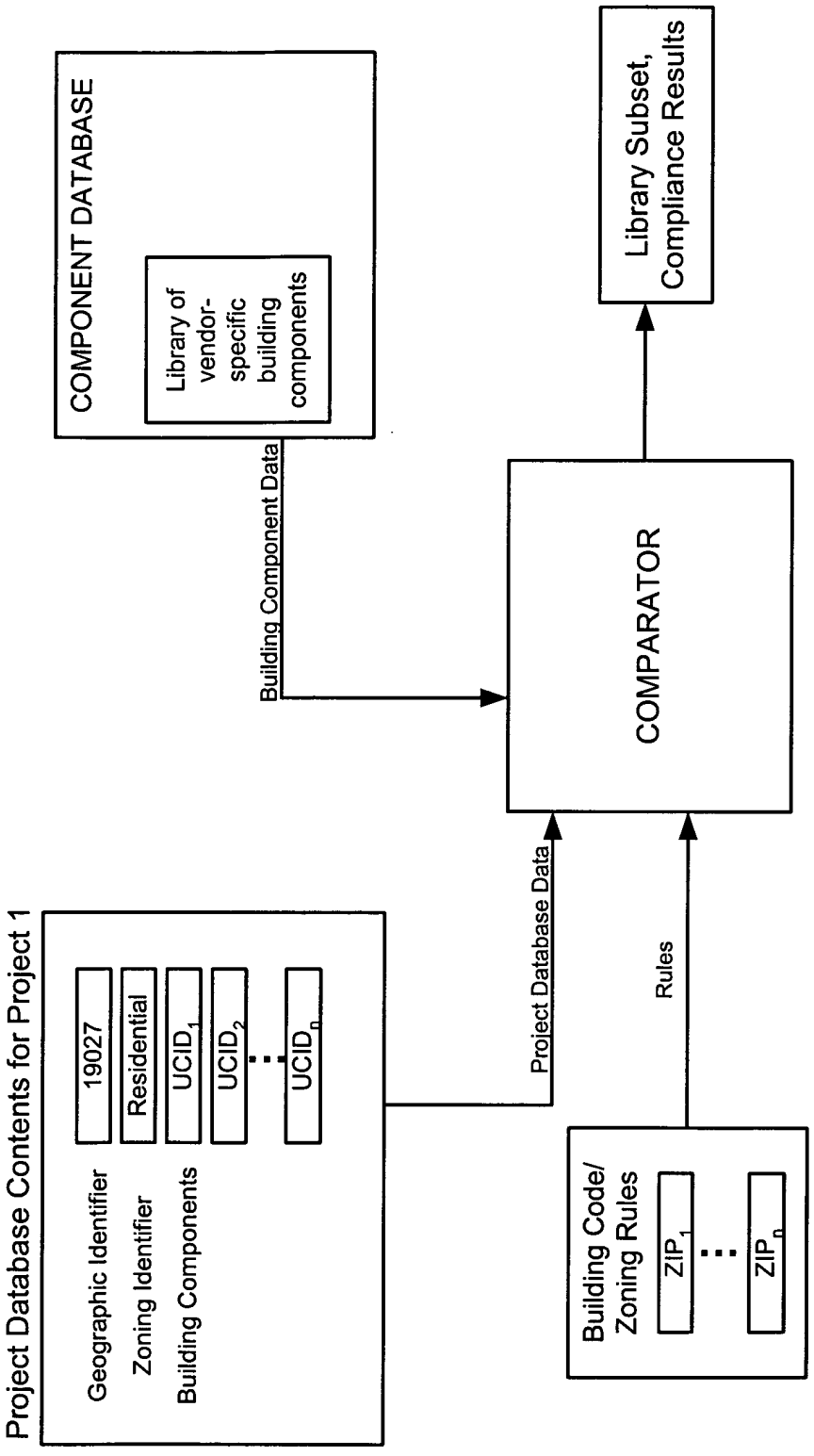

Project Database Contents for Project 1
Geographic Identifier
19027
Zoning Identifier
Residential
Building Components
UCID1
UCID2
UCIDn
Project Database Data
Building Code/
Zoning Rules
ZIP1
ZIPn
Rules
COMPARATOR
Building Component Data
COMPONENT DATABASE
Library of vendor-specific building components
Library Subset, Compliance Results

FIG. 18

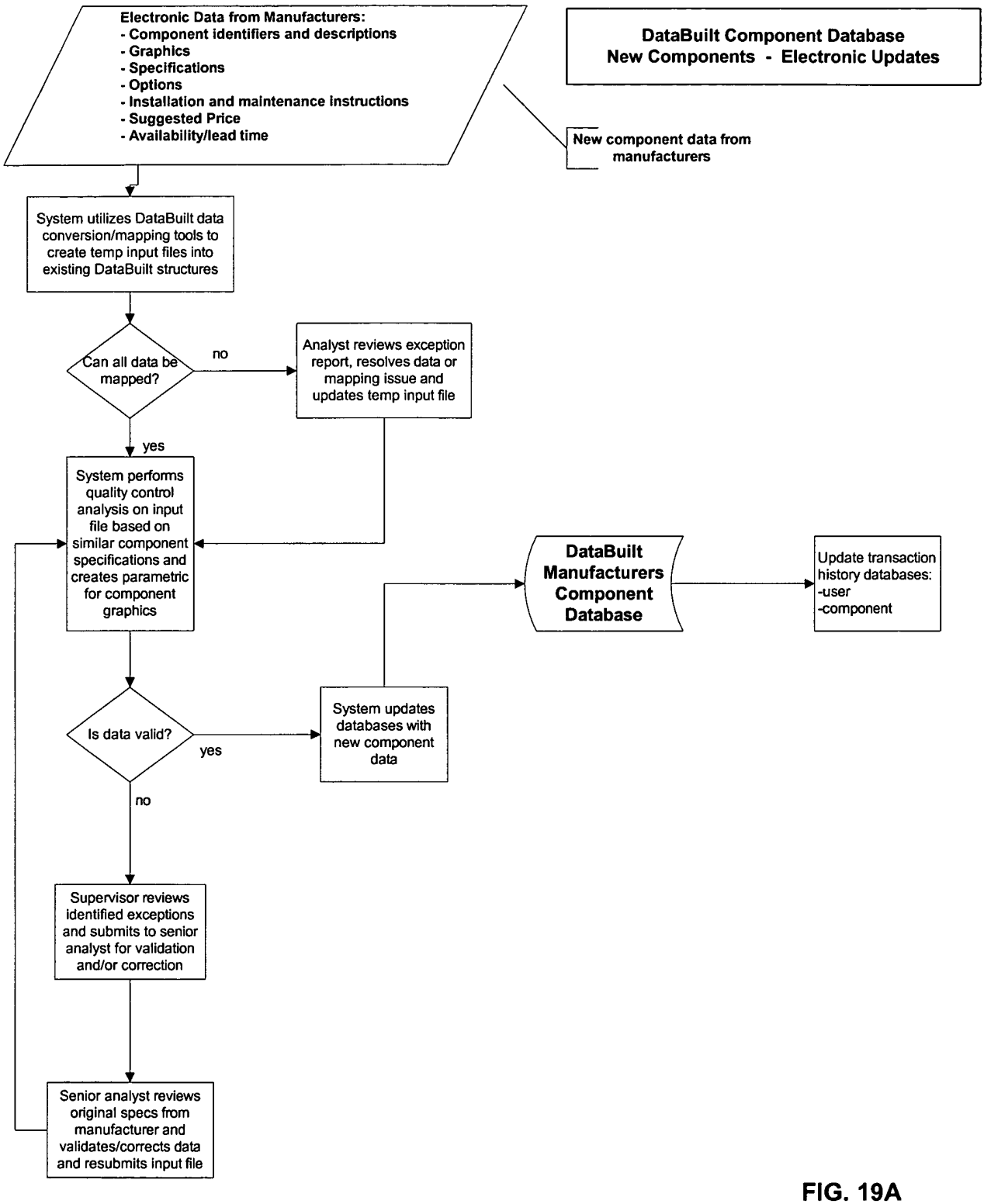


FIG. 19A

PROCESS FLOW: 1

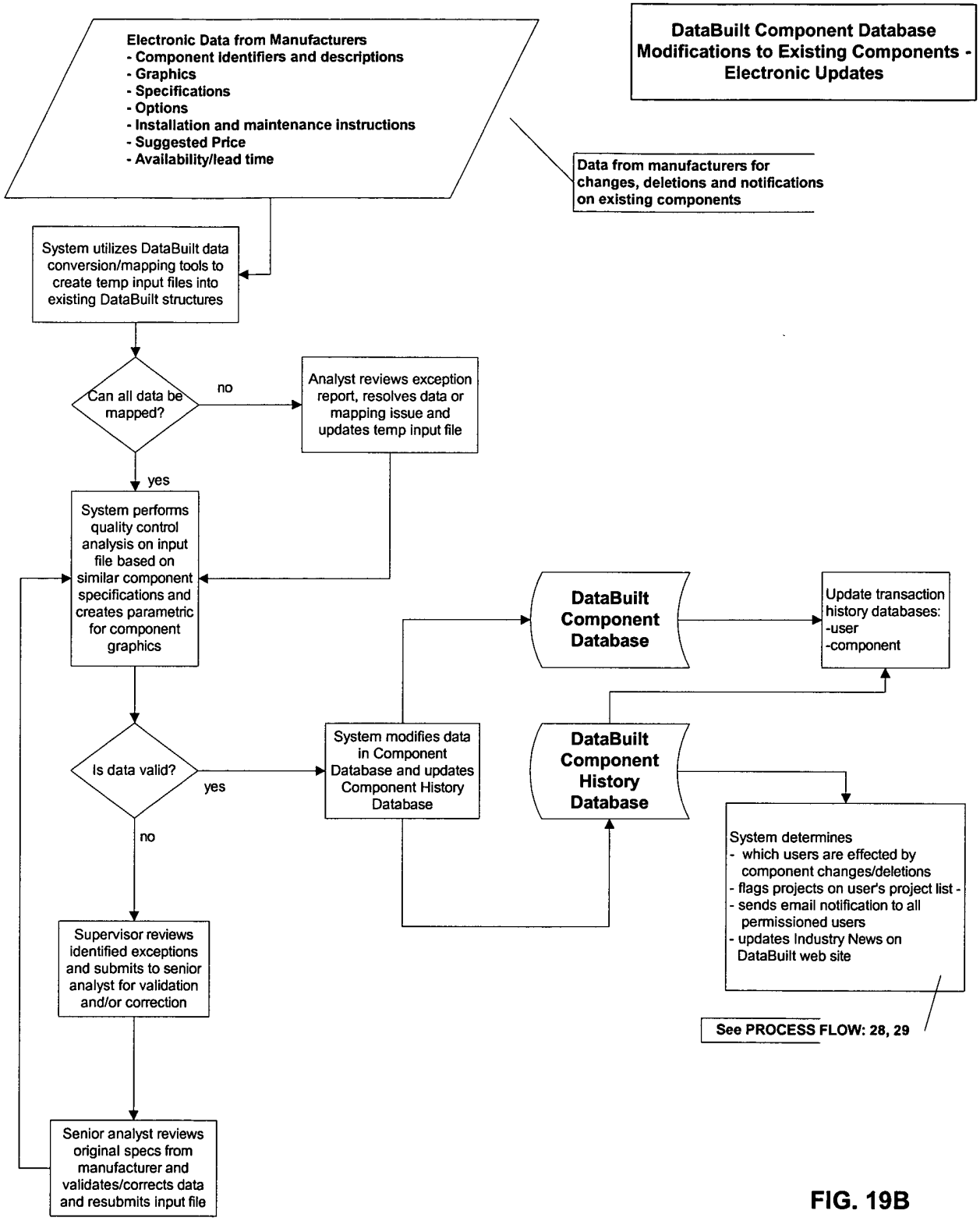


FIG. 19B

PROCESS FLOW: 2

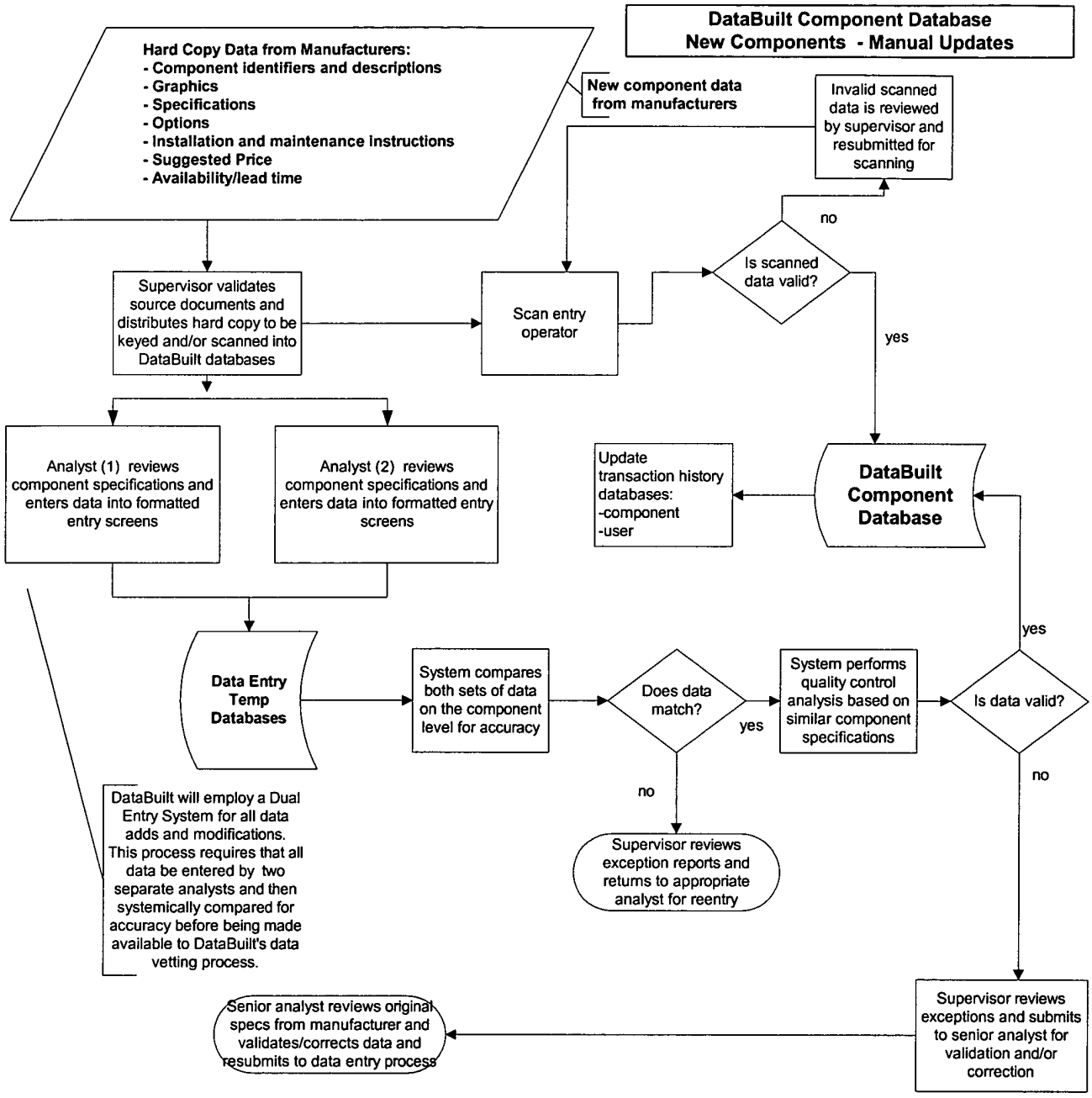


FIG. 19C

PROCESS FLOW: 3

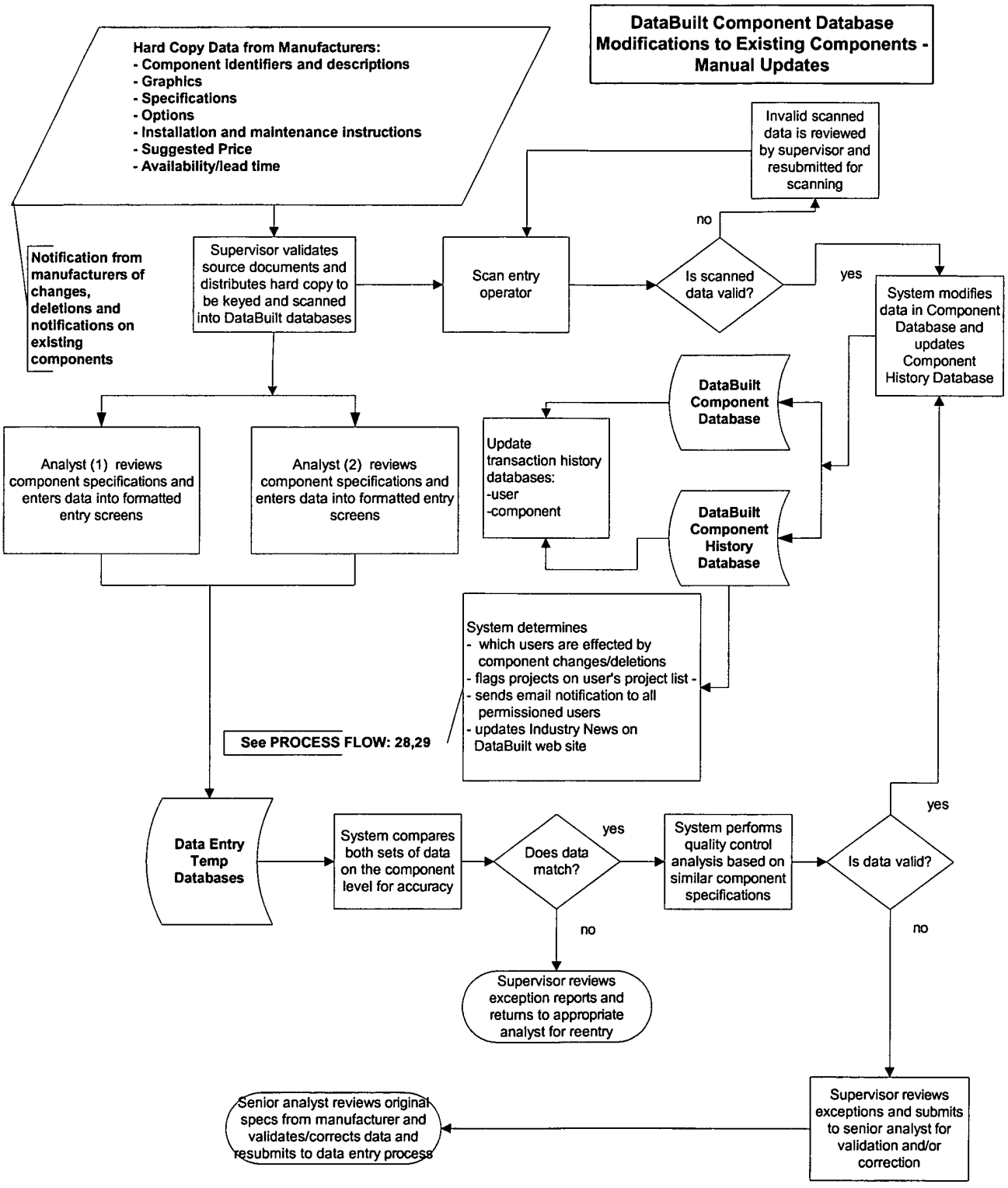


FIG. 19D

PROCESS FLOW: 4

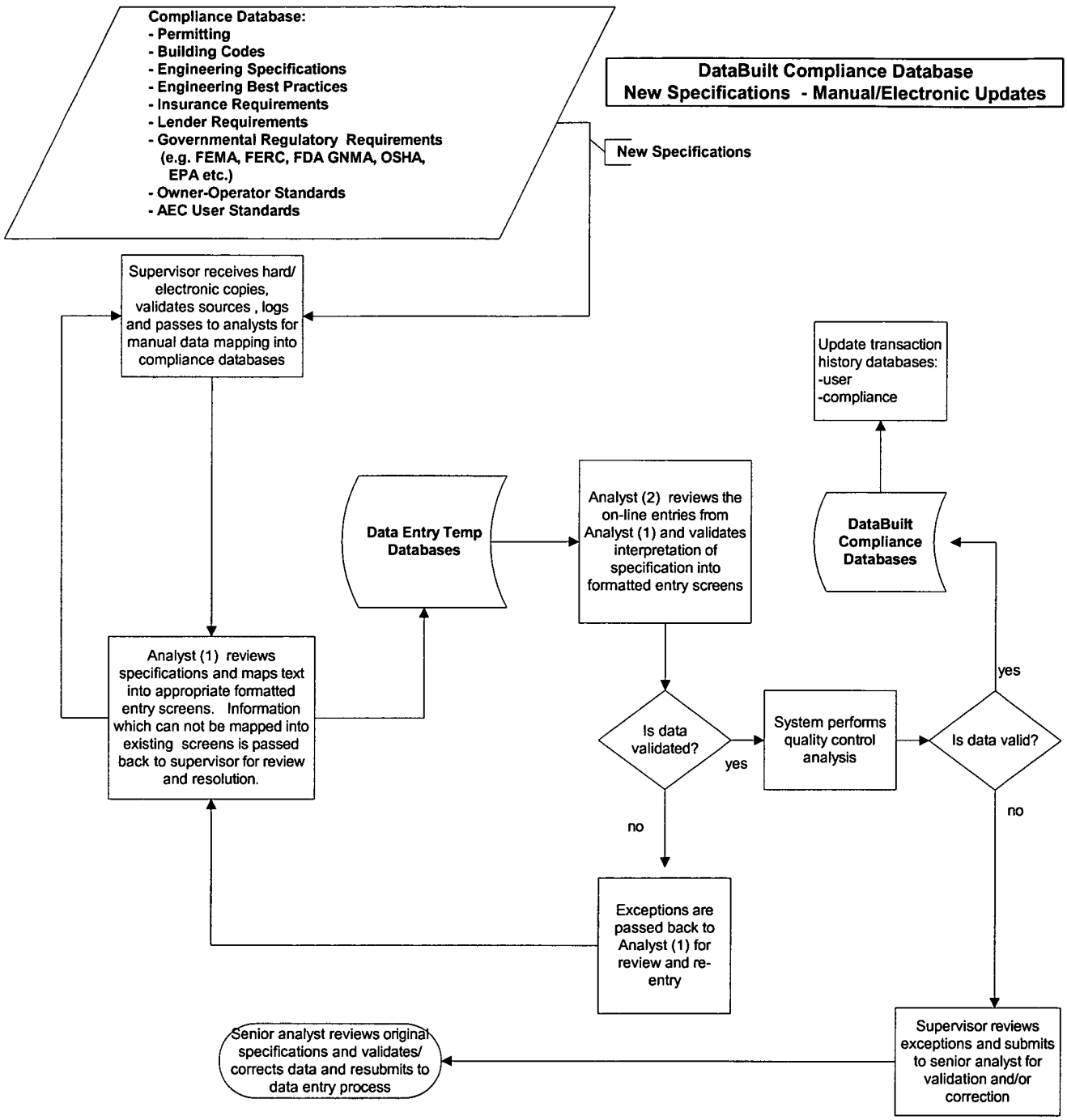


FIG. 19E

PROCESS FLOW: 5

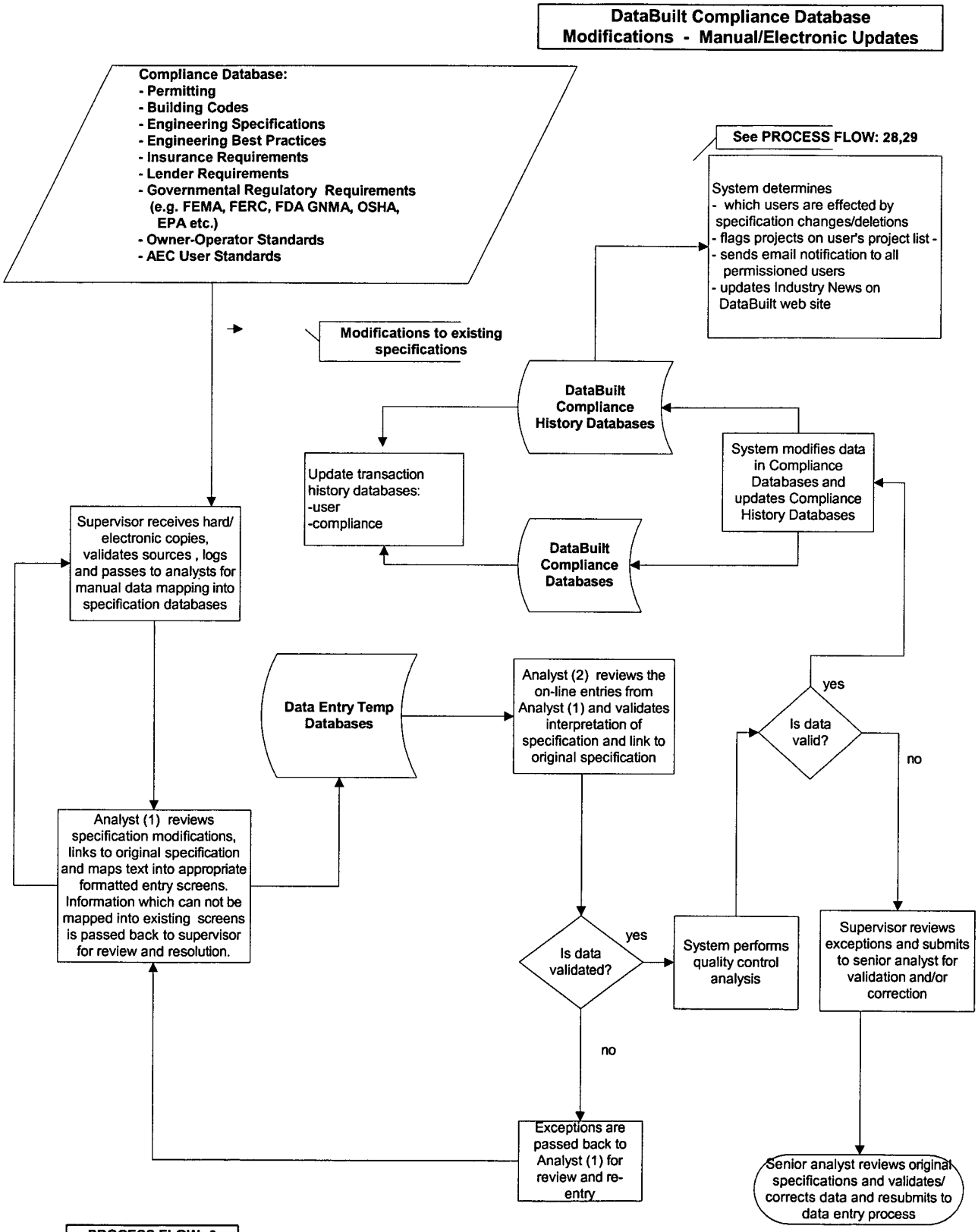
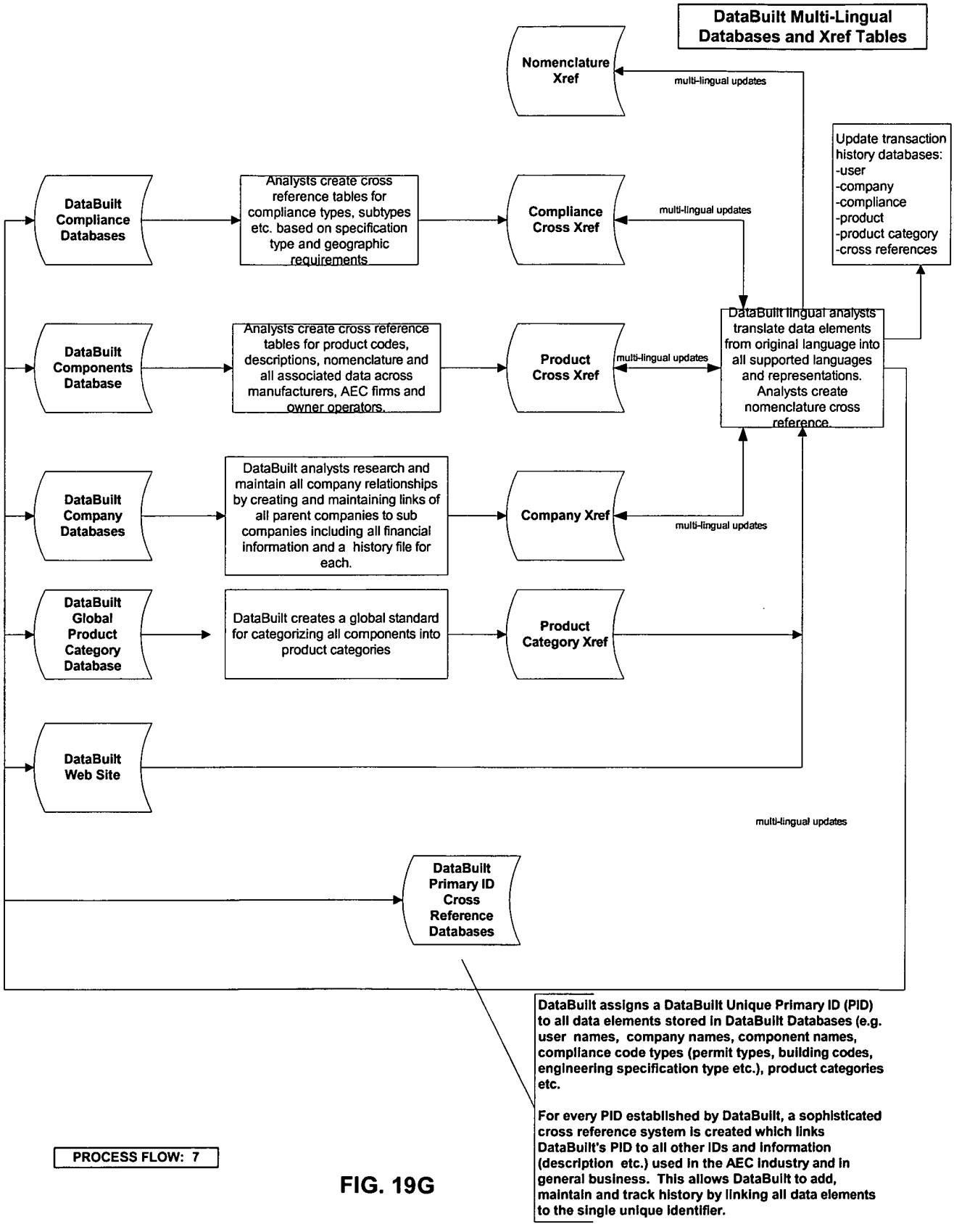
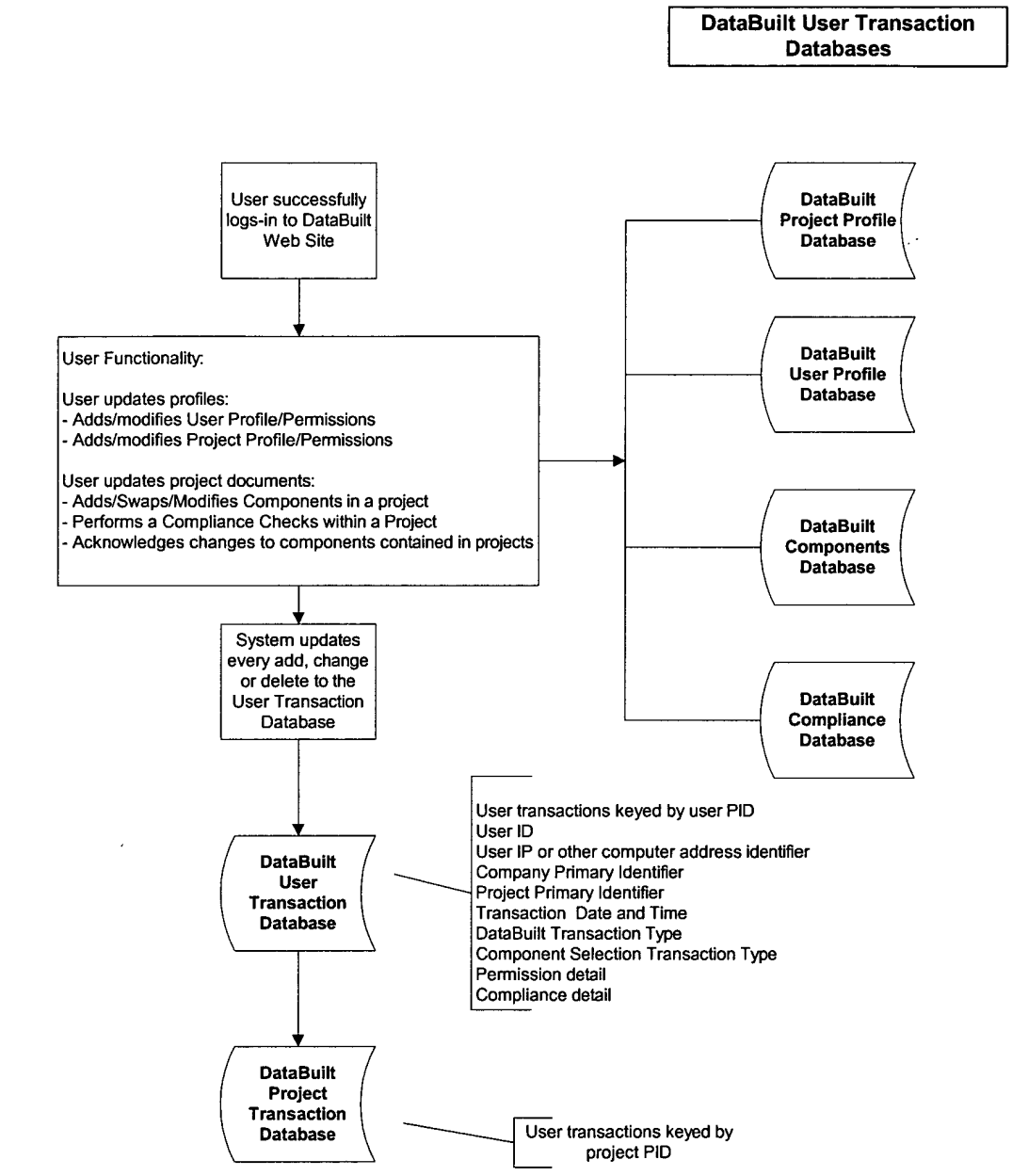

DataBuilt Compliance Database Modifications - Manual/Electronic Updates
Compliance Database:
- Permitting
- Building Codes
- Engineering Specifications
- Engineering Best Practices
- Insurance Requirements
- Lender Requirements
- Governmental Regulatory Requirements (e.g. FEMA, FERC, FDA GNMA, OSHA, EPA etc.)
- Owner-Operator Standards
- AEC User Standards
See PROCESS FLOW: 28,29
System determines
- which users are effected by specification changes/deletions
- flags projects on user's project list -
- sends email notification to all permissioned users
- updates Industry News on DataBuilt web site
Modifications to existing specifications
DataBuilt Compliance History Databases
Update transaction history databases:
-user
-compliance
System modifies data in Compliance Databases and updates Compliance History Databases
Supervisor receives hard/ electronic copies, validates sources , logs and passes to analysts for manual data mapping into specification databases
DataBuilt Compliance Databases
Data Entry Temp Databases
Analyst (2) reviews the on-line entries from Analyst (1) and validates interpretation of specification and link to original specification
yes
Is data valid?
no
Analyst (1) reviews specification modifications, links to original specification and maps text into appropriate formatted entry screens. Information which can not be mapped into existing screens is passed back to supervisor for review and resolution.
Is data validated?
yes
System performs quality control analysis
Supervisor reviews exceptions and submits to senior analyst for validation and/or correction
no
Exceptions are passed back to Analyst (1) for review and re-entry
Senior analyst reviews original specifications and validates/ corrects data and resubmits to data entry process
PROCESS FLOW: 6

FIG. 19F



PROCESS FLOW: 7

FIG. 19G



PROCESS FLOW: 8

FIG. 20A

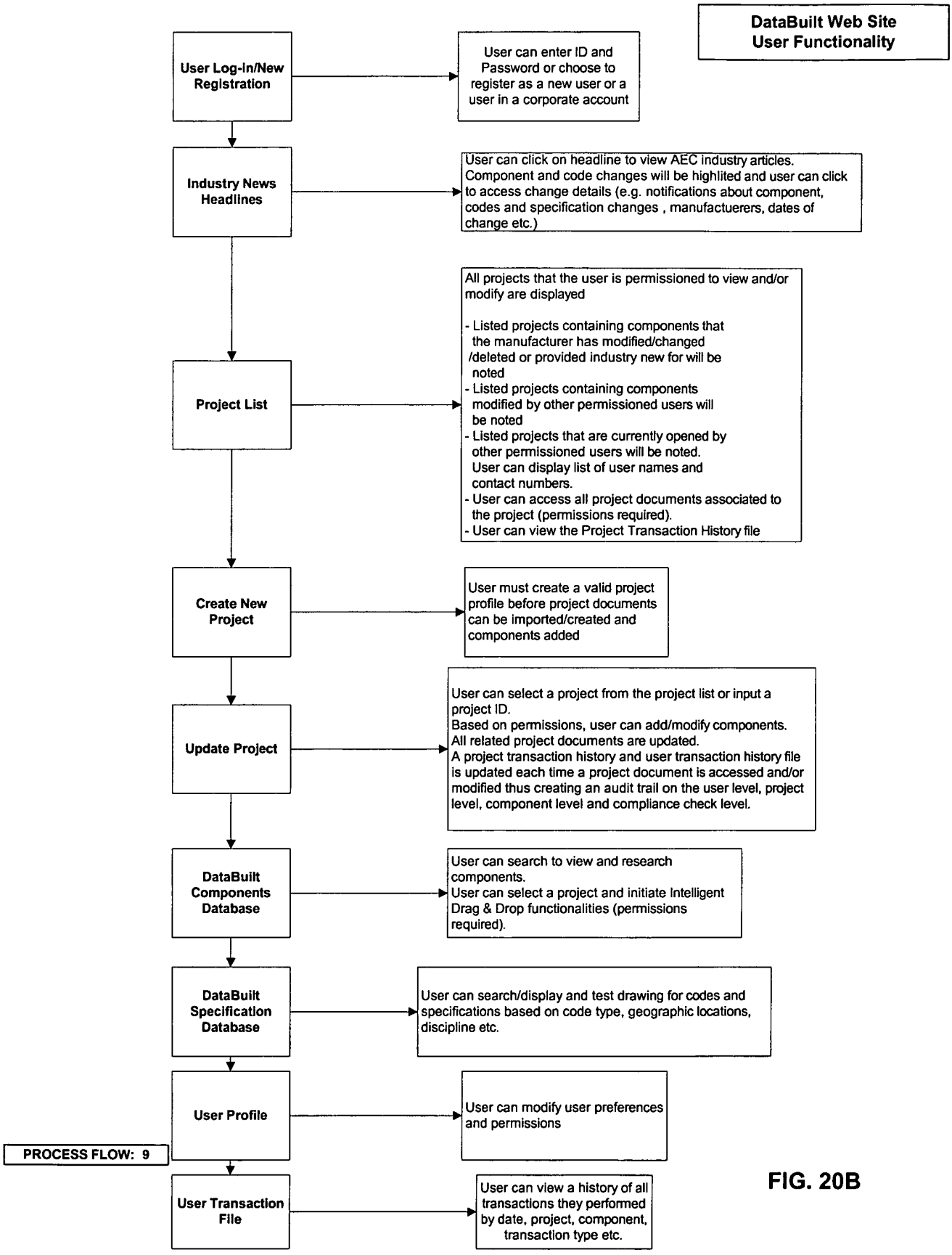

DataBuilt Web Site User Functionality
User Log-In/New Registration
User can enter ID and Password or choose to register as a new user or a user in a corporate account
Industry News Headlines
User can click on headline to view AEC industry articles. Component and code changes will be highlited and user can click to access change details (e.g. notifications about component, codes and specification changes , manufactuerers, dates of change etc.)
Project List
All projects that the user is permissioned to view and/or modify are displayed
- Listed projects containing components that the manufacturer has modified/changed /deleted or provided industry new for will be noted
- Listed projects containing components modified by other permissioned users will be noted
- Listed projects that are currently opened by other permissioned users will be noted. User can display list of user names and contact numbers.
- User can access all project documents associated to the project (permissions required).
- User can view the Project Transaction History file
Create New Project
User must create a valid project profile before project documents can be imported/created and components added
Update Project
User can select a project from the project list or input a project ID.
Based on permissions, user can add/modify components.
All related project documents are updated.
A project transaction history and user transaction history file is updated each time a project document is accessed and/or modified thus creating an audit trail on the user level, project level, component level and compliance check level.
DataBuilt Components Database
User can search to view and research components.
User can select a project and initiate Intelligent Drag & Drop functionalities (permissions required).
DataBuilt Specification Database
User can search/display and test drawing for codes and specifications based on code type, geographic locations, discipline etc.
User Profile
User can modify user preferences and permissions
PROCESS FLOW: 9
User Transaction File
User can view a history of all transactions they performed by date, project, component, transaction type etc.

FIG. 20B

User Log-in
DataBuilt Web Site

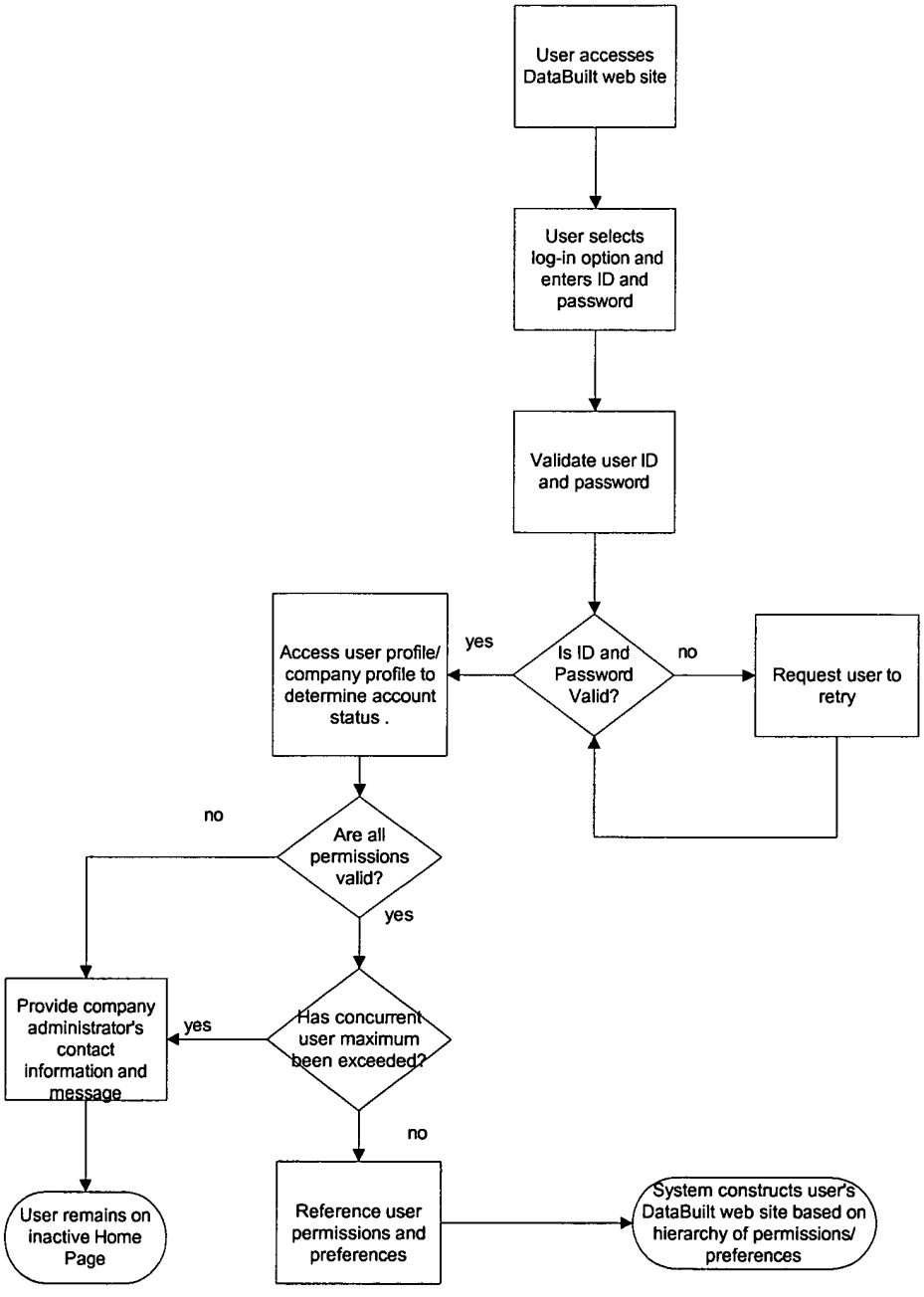


FIG. 20C

PROCESS FLOW: 10

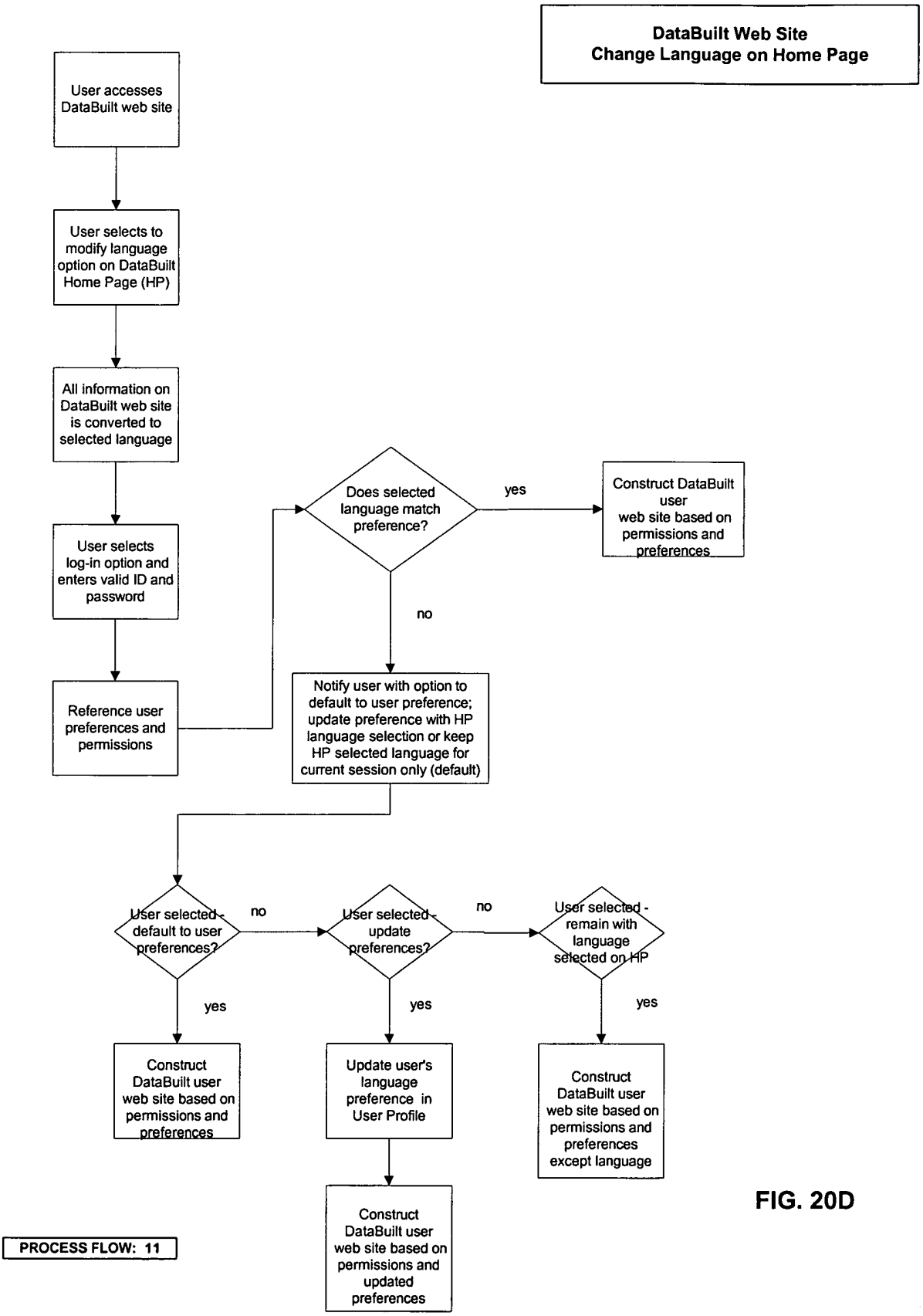

DataBuilt Web Site
Change Language on Home Page
User accesses DataBuilt web site
User selects to modify language option on DataBuilt Home Page (HP)
All information on DataBuilt web site is converted to selected language
User selects log-in option and enters valid ID and password
Reference user preferences and permissions
Does selected language match preference?
yes
Construct DataBuilt user web site based on permissions and preferences
no
Notify user with option to default to user preference; update preference with HP language selection or keep HP selected language for current session only (default)
User selected - default to user preferences?
no
User selected - update preferences?
no
User selected - remain with language selected on HP
yes
yes
yes
Construct DataBuilt user web site based on permissions and preferences
Update user's language preference in User Profile
Construct DataBuilt user web site based on permissions and preferences except language
Construct DataBuilt user web site based on permissions and updated preferences
PROCESS FLOW: 11

FIG. 20D

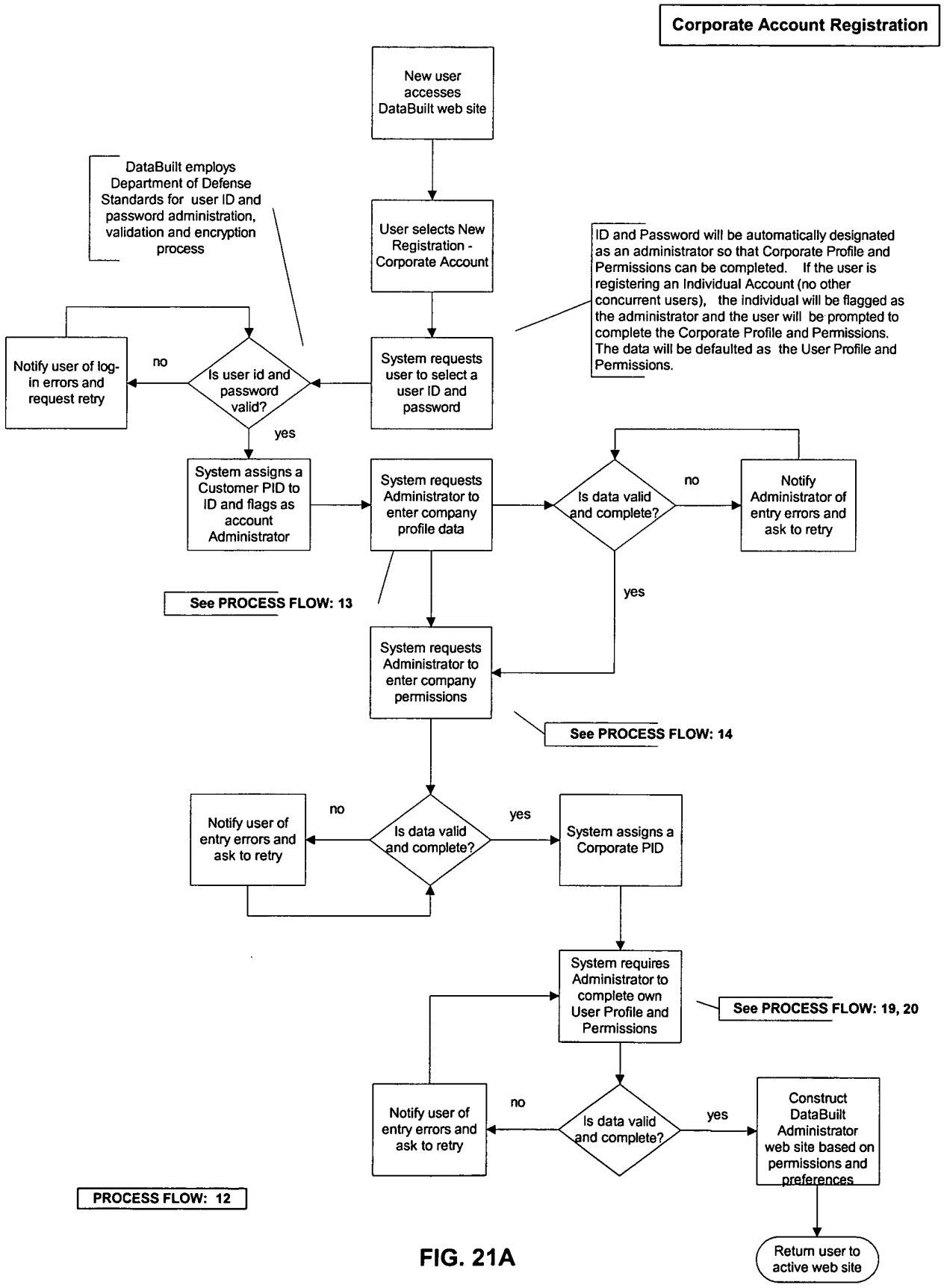

Corporate Account Registration
New user accesses DataBuilt web site
DataBuilt employs Department of Defense Standards for user ID and password administration, validation and encryption process
User selects New Registration - Corporate Account
ID and Password will be automatically designated as an administrator so that Corporate Profile and Permissions can be completed. If the user is registering an Individual Account (no other concurrent users), the individual will be flagged as the administrator and the user will be prompted to complete the Corporate Profile and Permissions. The data will be defaulted as the User Profile and Permissions.
System requests user to select a user ID and password
Is user id and password valid?
no
Notify user of log-in errors and request retry
yes
System assigns a Customer PID to ID and flags as account Administrator
System requests Administrator to enter company profile data
Is data valid and complete?
no
Notify Administrator of entry errors and ask to retry
yes
See PROCESS FLOW: 13
System requests Administrator to enter company permissions
See PROCESS FLOW: 14
Is data valid and complete?
no
Notify user of entry errors and ask to retry
yes
System assigns a Corporate PID
System requires Administrator to complete own User Profile and Permissions
See PROCESS FLOW: 19, 20
Is data valid and complete?
no
Notify user of entry errors and ask to retry
yes
Construct DataBuilt Administrator web site based on permissions and preferences
Return user to active web site
PROCESS FLOW: 12

FIG. 21A

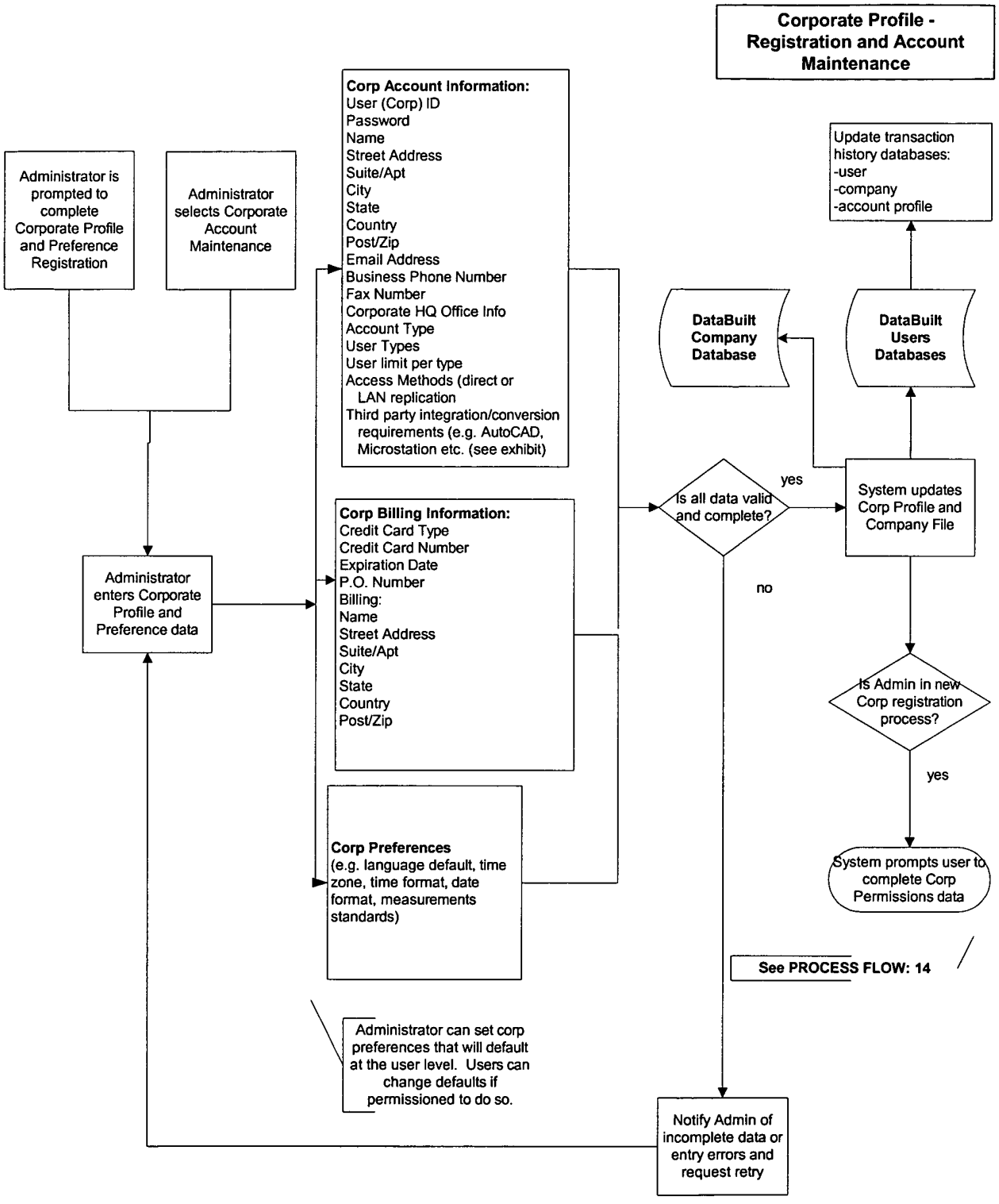

Corporate Profile - Registration and Account Maintenance
Administrator is prompted to complete Corporate Profile and Preference Registration
Administrator selects Corporate Account Maintenance
Corp Account Information:
User (Corp) ID
Password
Name
Street Address
Suite/Apt
City
State
Country
Post/Zip
Email Address
Business Phone Number
Fax Number
Corporate HQ Office Info
Account Type
User Types
User limit per type
Access Methods (direct or LAN replication
Third party integration/conversion requirements (e.g. AutoCAD, Microstation etc. (see exhibit)
Update transaction history databases:
-user
-company
-account profile
DataBuilt Company Database
DataBuilt Users Databases
Is all data valid and complete?
yes
System updates Corp Profile and Company File
Administrator enters Corporate Profile and Preference data
Corp Billing Information:
Credit Card Type
Credit Card Number
Expiration Date
P.O. Number
Billing:
Name
Street Address
Suite/Apt
City
State
Country
Post/Zip
no
Is Admin in new Corp registration process?
yes
System prompts user to complete Corp Permissions data
Corp Preferences
(e.g. language default, time zone, time format, date format, measurements standards)
See PROCESS FLOW: 14
Administrator can set corp preferences that will default at the user level. Users can change defaults if permissioned to do so.
Notify Admin of incomplete data or entry errors and request retry
PROCESS FLOW: 13

FIG. 21B

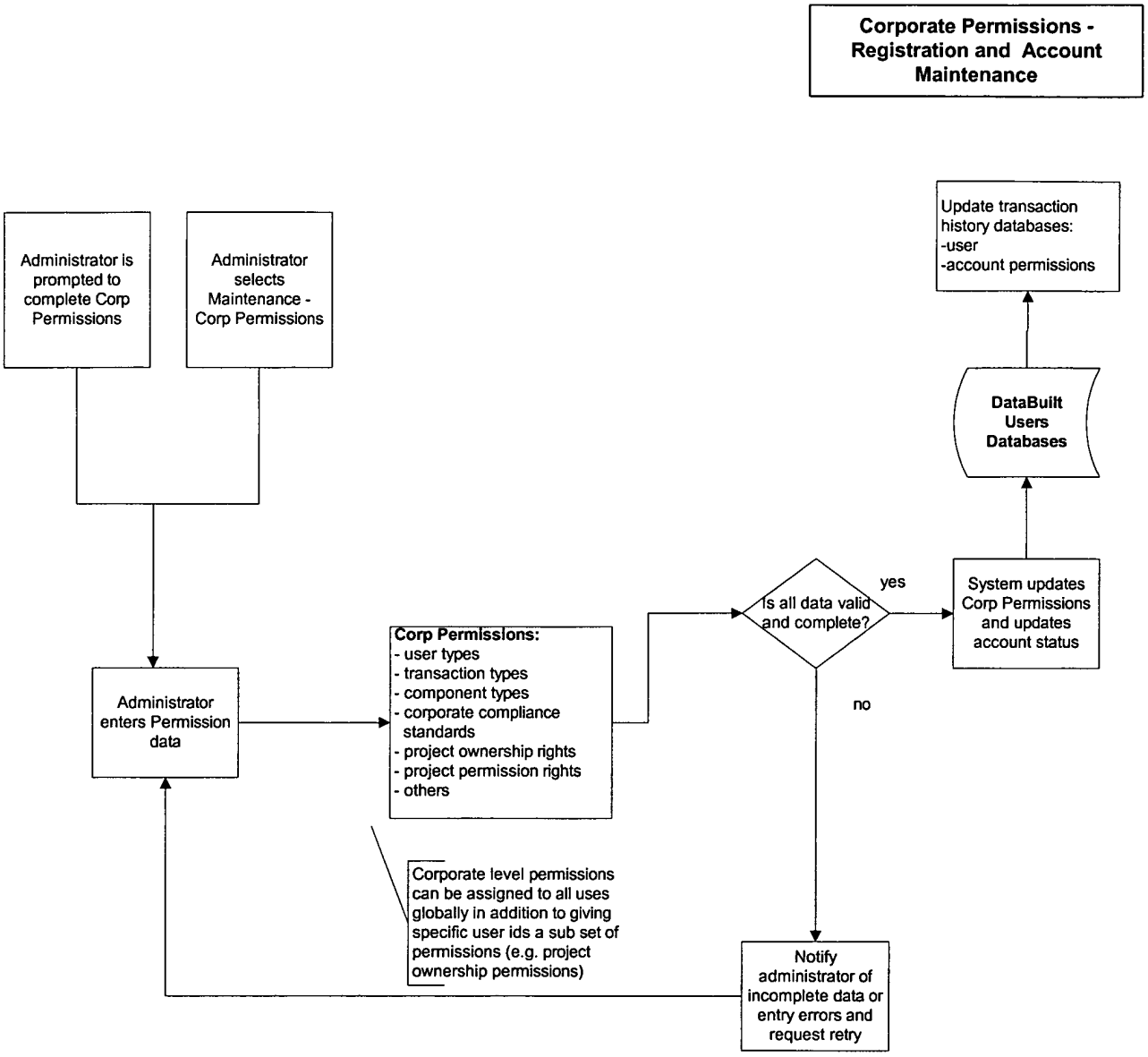
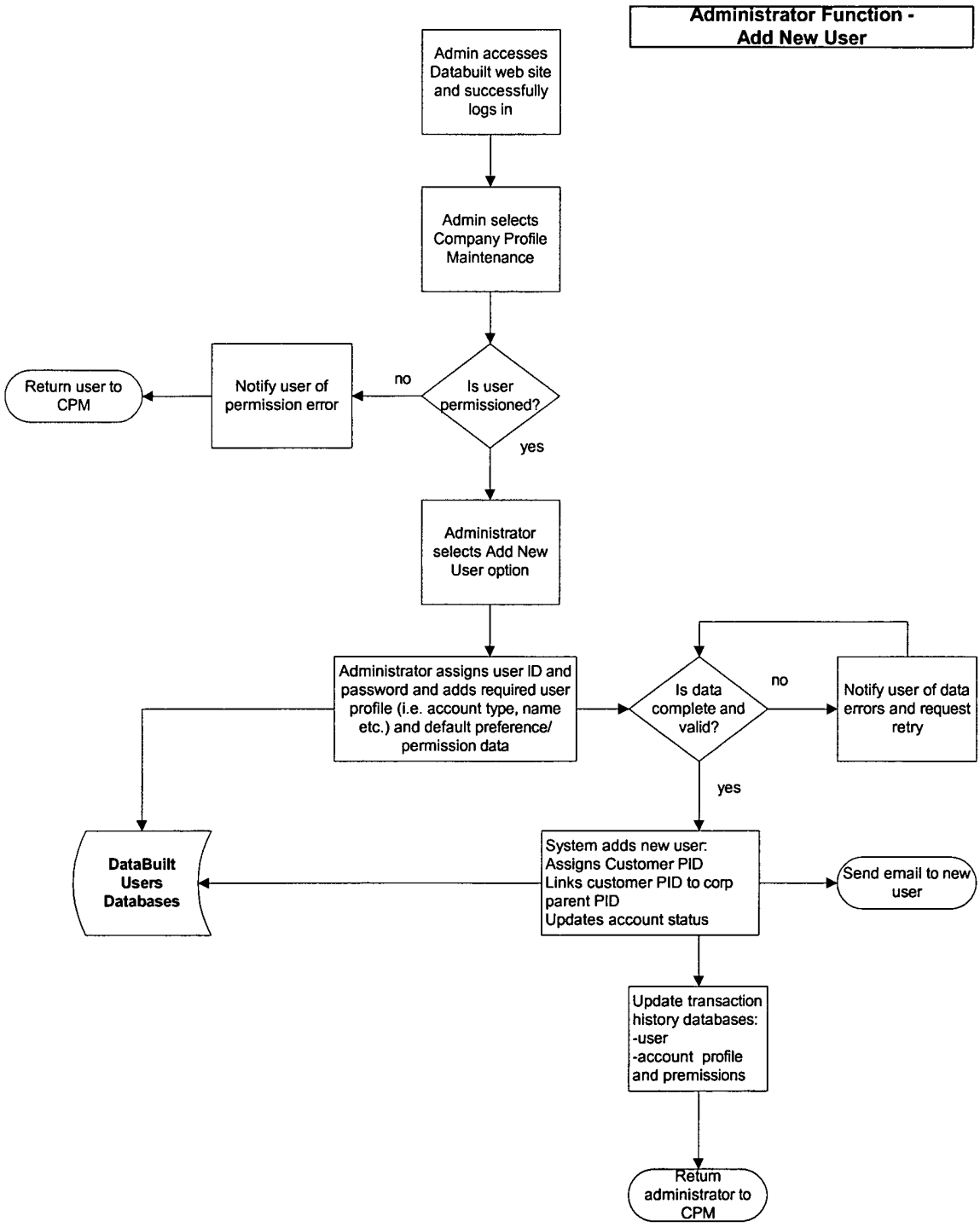

Corporate Permissions - Registration and Account Maintenance
Administrator is prompted to complete Corp Permissions
Administrator selects Maintenance - Corp Permissions
Update transaction history databases: -user -account permissions
DataBuilt Users Databases
Is all data valid and complete?
yes
System updates Corp Permissions and updates account status
Administrator enters Permission data
Corp Permissions:
- user types
- transaction types
- component types
- corporate compliance standards
- project ownership rights
- project permission rights
- others
no
Corporate level permissions can be assigned to all uses globally in addition to giving specific user ids a sub set of permissions (e.g. project ownership permissions)
Notify administrator of incomplete data or entry errors and request retry
PROCESS FLOW: 14

FIG. 21C



PROCESS FLOW: 15

FIG. 21D

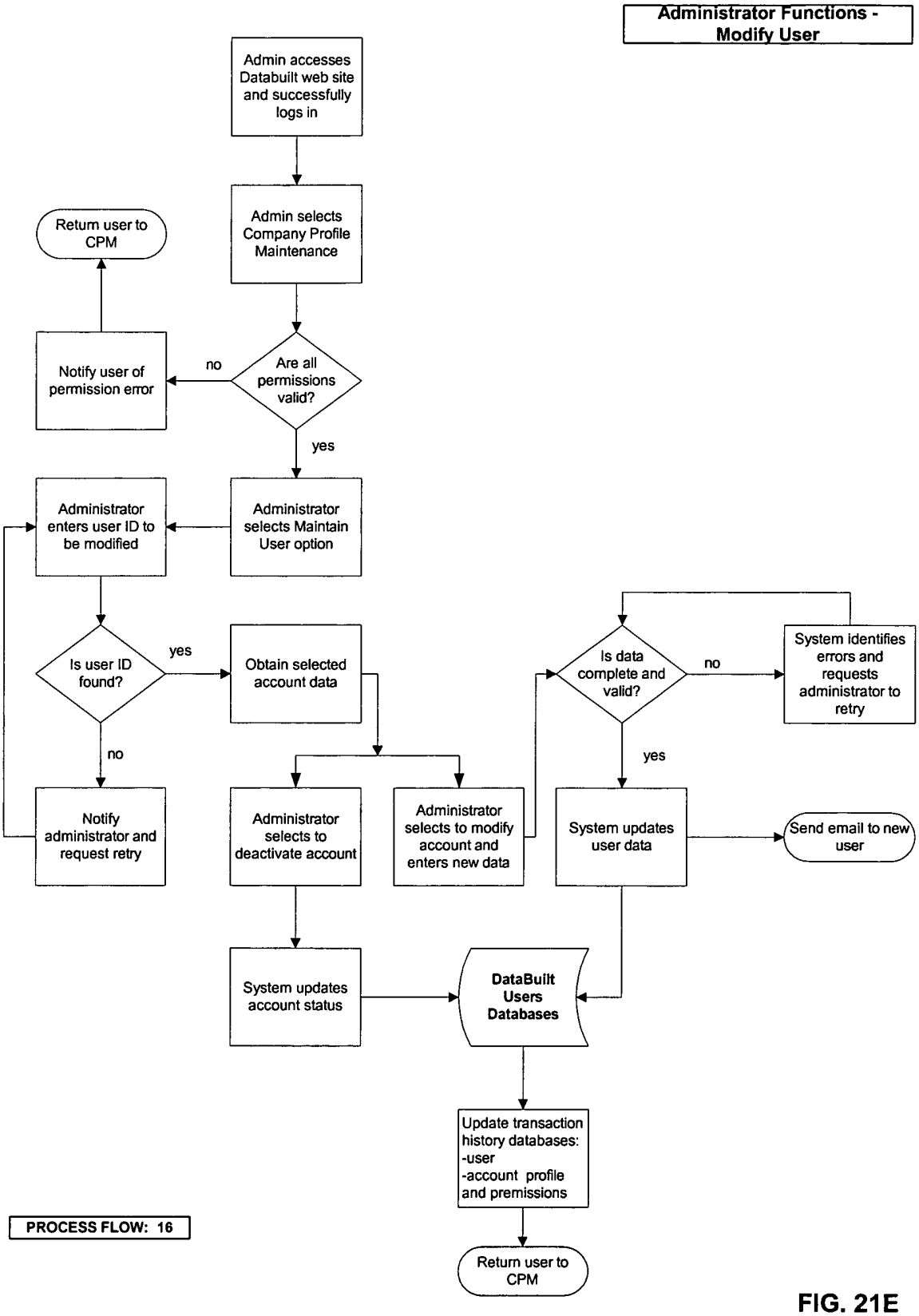
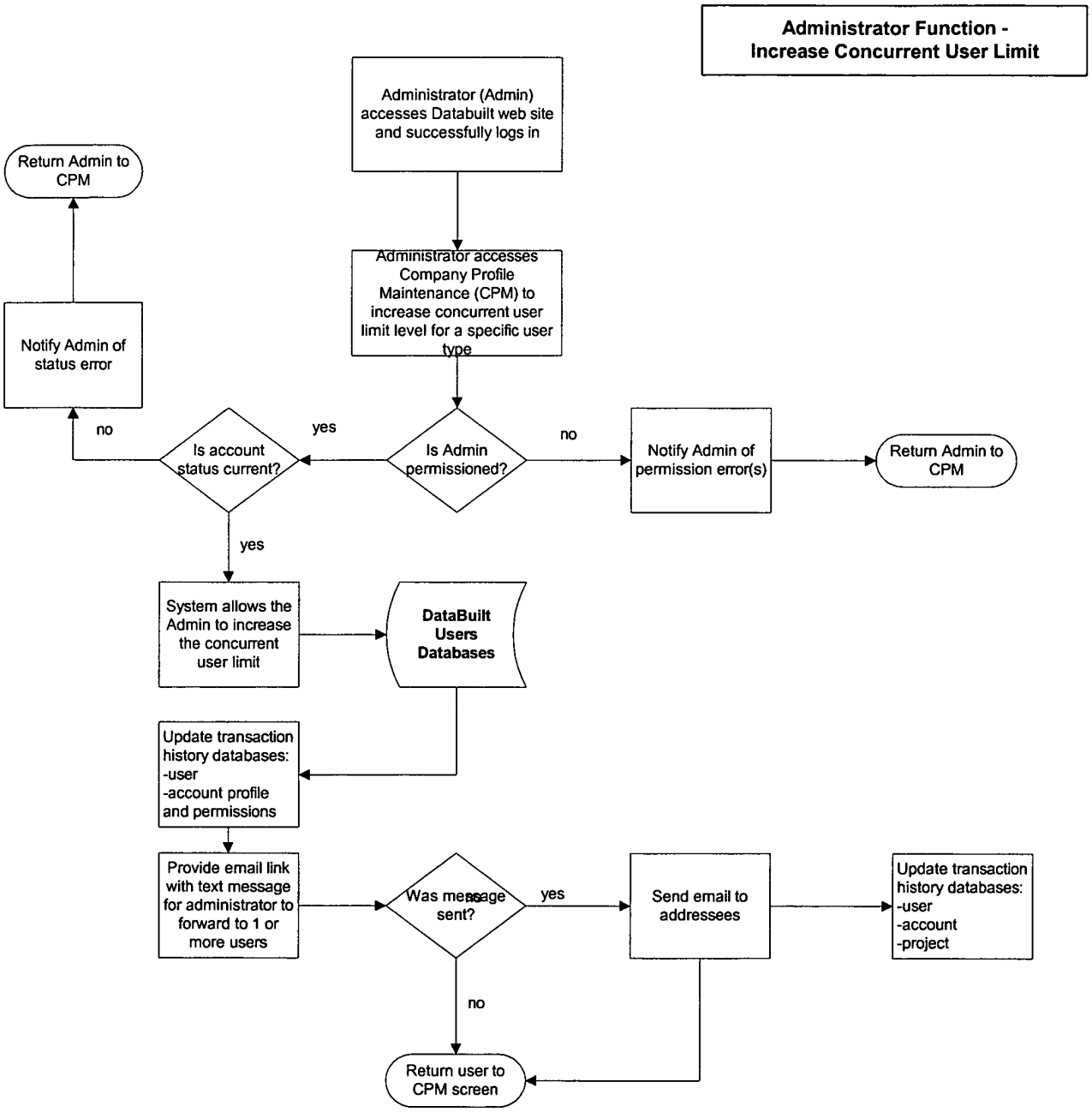

Administrator Functions - Modify User
Admin accesses Databuilt web site and successfully logs in
Admin selects Company Profile Maintenance
Are all permissions valid?
no
Notify user of permission error
Return user to CPM
yes
Administrator selects Maintain User option
Administrator enters user ID to be modified
Is user ID found?
yes
no
Obtain selected account data
Notify administrator and request retry
Administrator selects to deactivate account
Administrator selects to modify account and enters new data
Is data complete and valid?
no
System identifies errors and requests administrator to retry
yes
System updates user data
Send email to new user
System updates account status
DataBuilt Users Databases
Update transaction history databases:
-user
-account profile and premissions
Return user to CPM
PROCESS FLOW: 16

FIG. 21E



PROCESS FLOW: 17

FIG. 21F

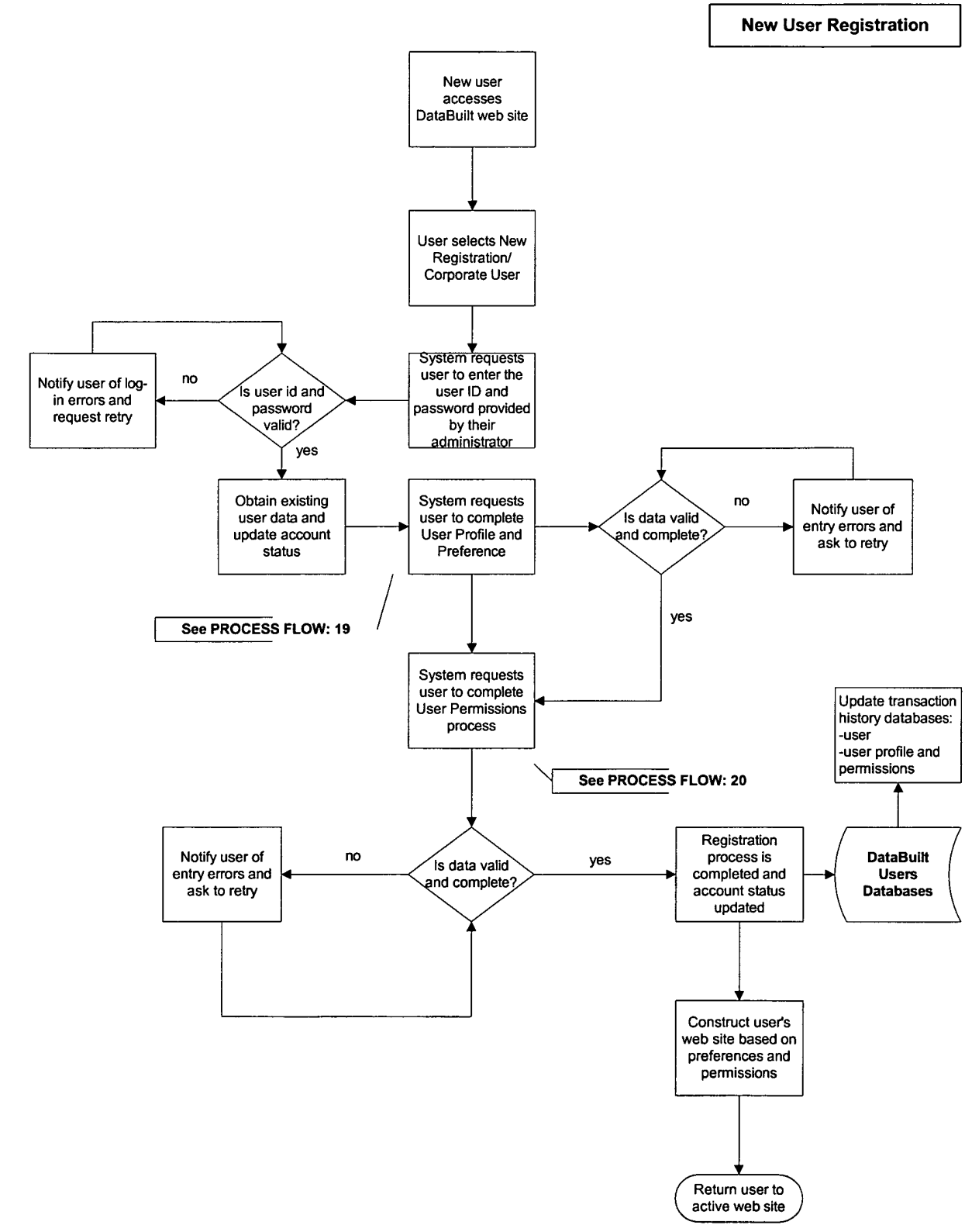
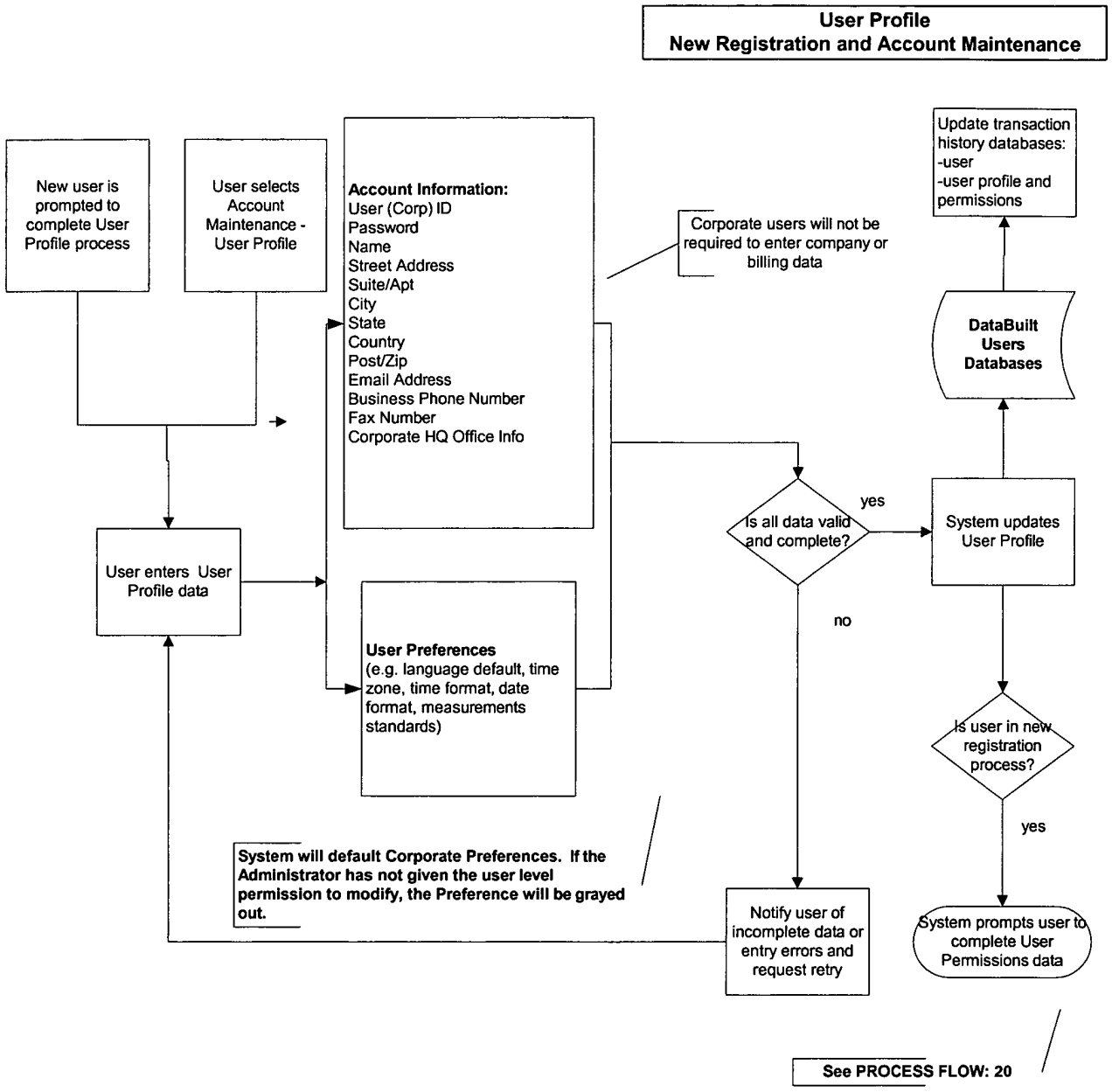
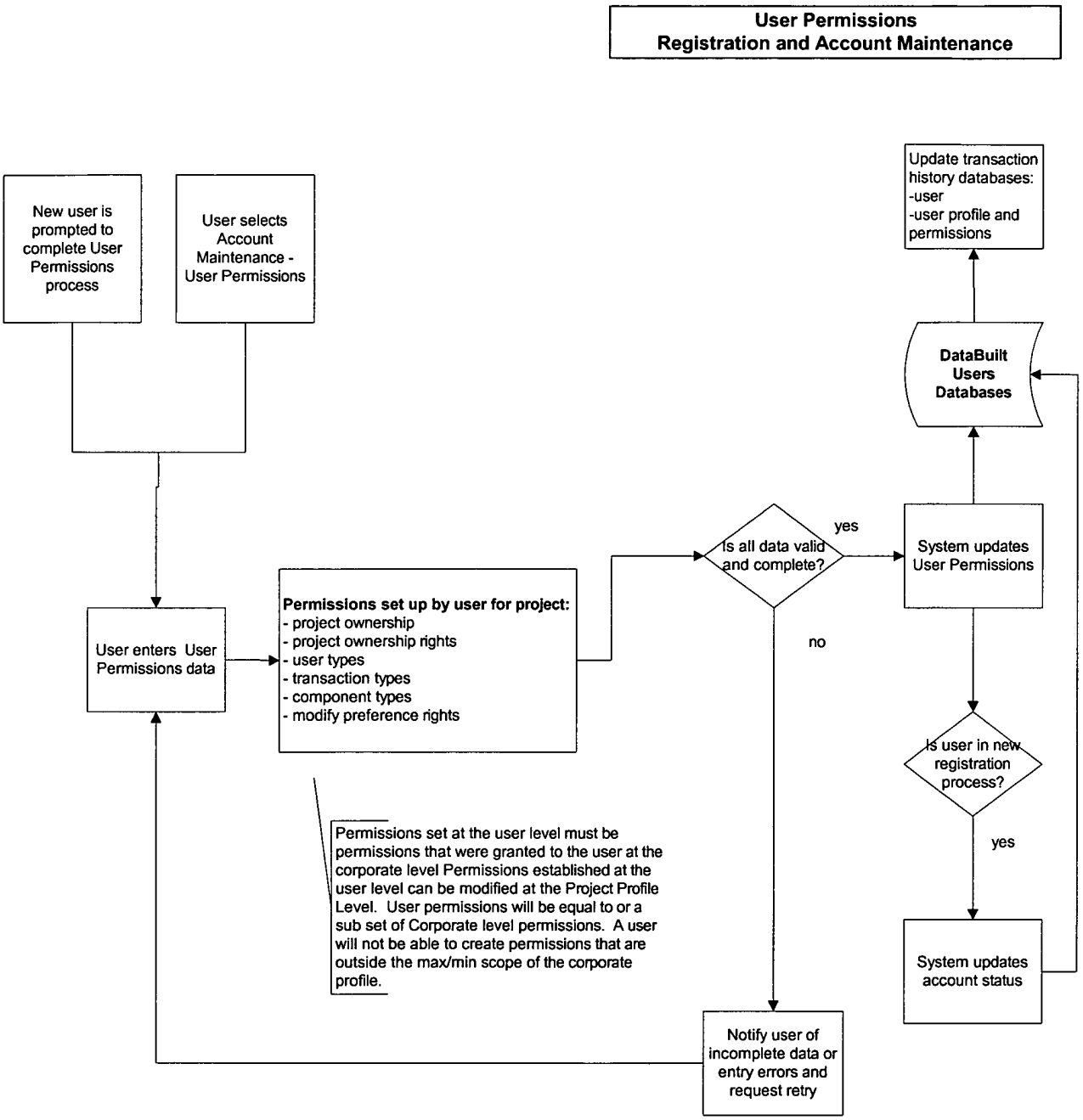

New User Registration
New user accesses DataBuilt web site
User selects New Registration/ Corporate User
System requests user to enter the user ID and password provided by their administrator
Is user id and password valid?
no
Notify user of log-in errors and request retry
yes
Obtain existing user data and update account status
System requests user to complete User Profile and Preference
Is data valid and complete?
no
Notify user of entry errors and ask to retry
yes
See PROCESS FLOW: 19
System requests user to complete User Permissions process
See PROCESS FLOW: 20
Update transaction history databases:
-user
-user profile and permissions
Is data valid and complete?
no
Notify user of entry errors and ask to retry
yes
Registration process is completed and account status updated
DataBuilt Users Databases
Construct user's web site based on preferences and permissions
Return user to active web site
PROCESS FLOW: 18

FIG. 21G



PROCESS FLOW: 19

FIG. 21H



PROCESS FLOW: 20

FIG. 21I

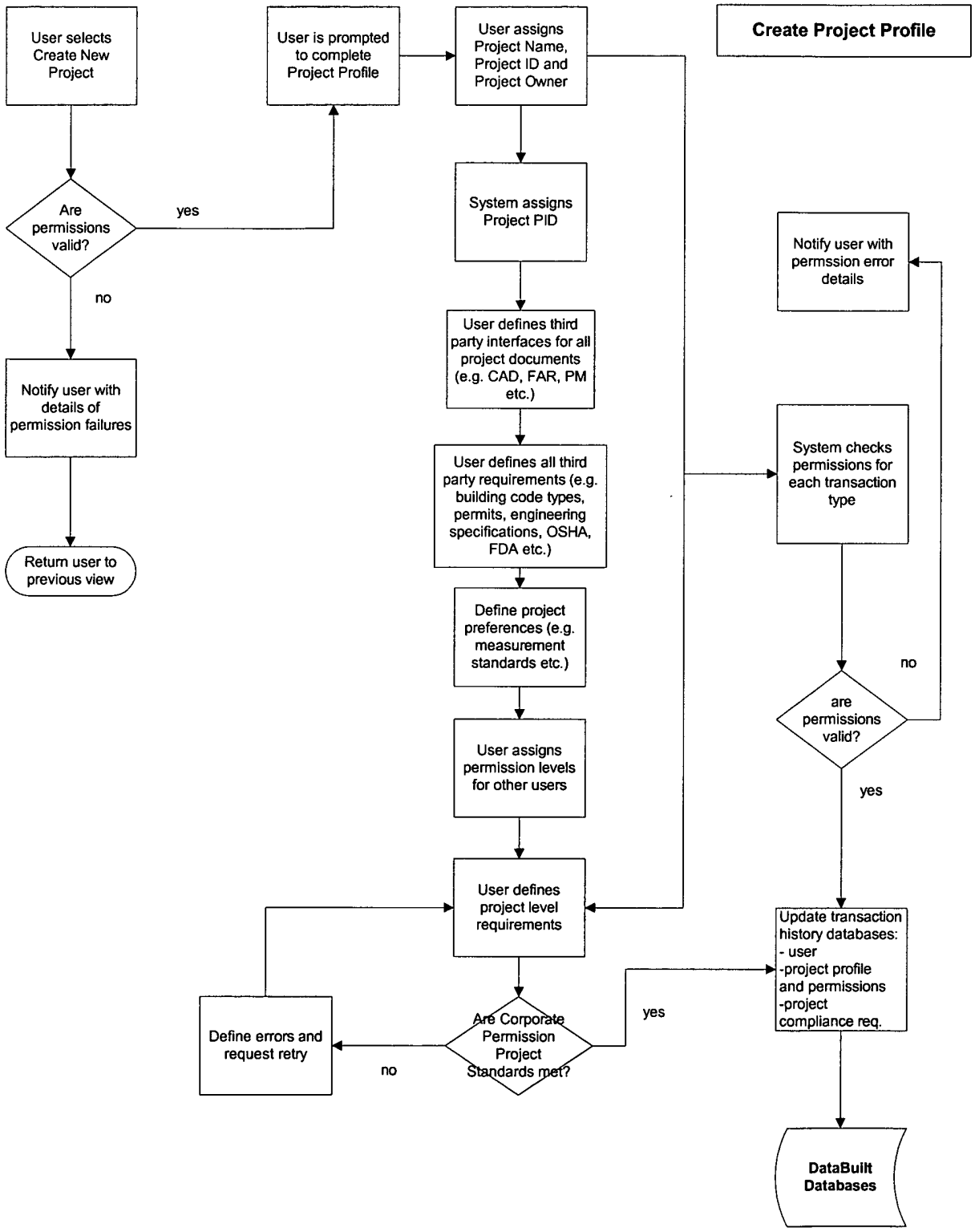

Create Project Profile
User selects Create New Project
User is prompted to complete Project Profile
User assigns Project Name, Project ID and Project Owner
Are permissions valid?
yes
no
System assigns Project PID
Notify user with details of permission failures
Return user to previous view
User defines third party interfaces for all project documents (e.g. CAD, FAR, PM etc.)
User defines all third party requirements (e.g. building code types, permits, engineering specifications, OSHA, FDA etc.)
Define project preferences (e.g. measurement standards etc.)
User assigns permission levels for other users
User defines project level requirements
Are Corporate Permission Project Standards met?
yes
no
Define errors and request retry
Notify user with permssion error details
System checks permissions for each transaction type
are permissions valid?
no
yes
Update transaction history databases:
- user
-project profile and permissions
-project compliance req.
DataBuilt Databases
PROCESS FLOW: 21

FIG. 22A

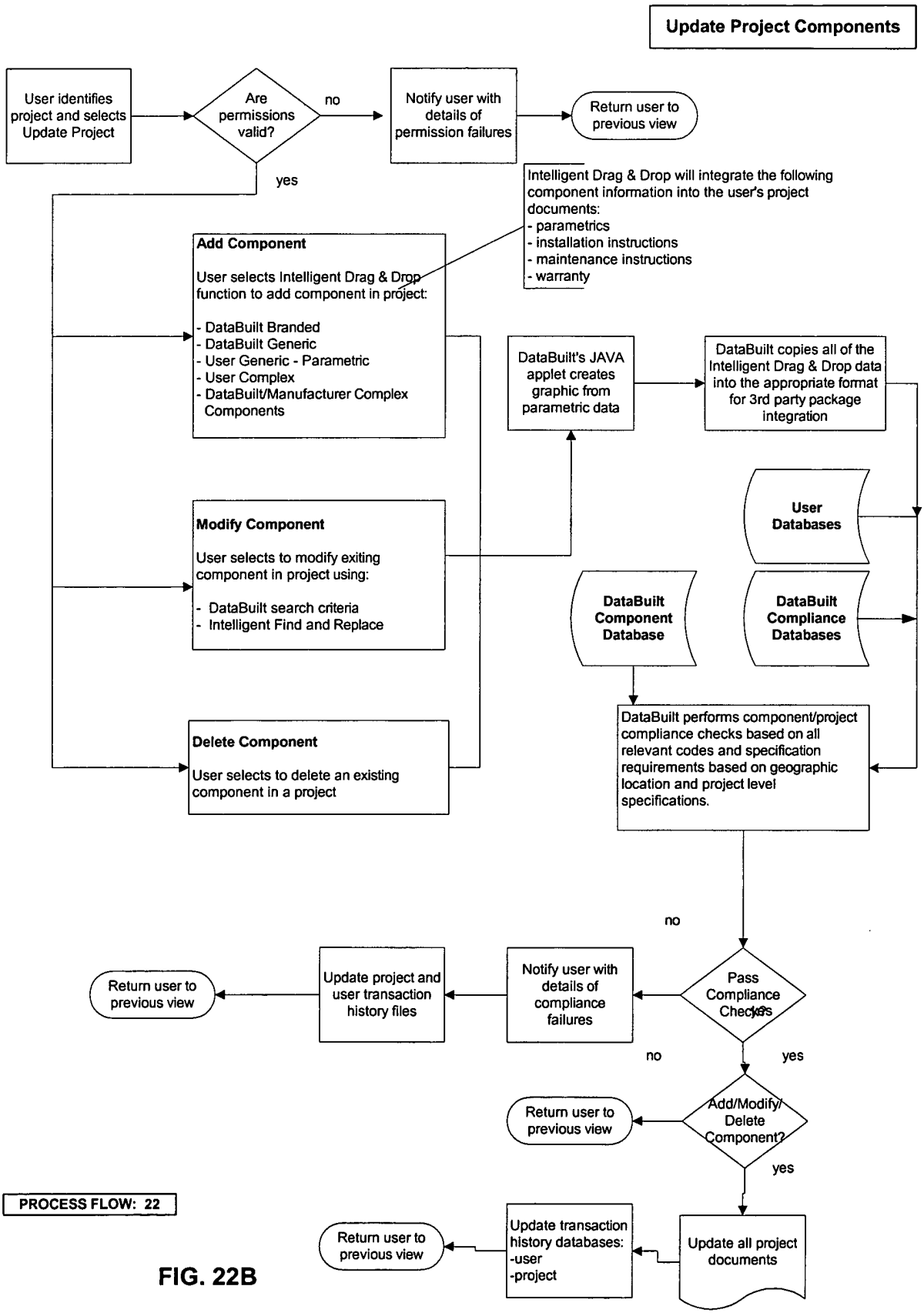

Update Project Components
User identifies project and selects Update Project
Are permissions valid?
no
Notify user with details of permission failures
Return user to previous view
yes
Intelligent Drag & Drop will integrate the following component information into the user's project documents:
- parametrics
- installation instructions
- maintenance instructions
- warranty
Add Component
User selects Intelligent Drag & Drop function to add component in project:
- DataBuilt Branded
- DataBuilt Generic
- User Generic - Parametric
- User Complex
- DataBuilt/Manufacturer Complex Components
DataBuilt's JAVA applet creates graphic from parametric data
DataBuilt copies all of the Intelligent Drag & Drop data into the appropriate format for 3rd party package integration
Modify Component
User selects to modify exiting component in project using:
- DataBuilt search criteria
- Intelligent Find and Replace
User Databases
DataBuilt Component Database
DataBuilt Compliance Databases
Delete Component
User selects to delete an existing component in a project
DataBuilt performs component/project compliance checks based on all relevant codes and specification requirements based on geographic location and project level specifications.
no
Pass Compliance Checks?
yes
Notify user with details of compliance failures
Update project and user transaction history files
Return user to previous view
no
yes
Add/Modify/ Delete Component?
Return user to previous view
yes
Update all project documents
Update transaction history databases:
-user
-project
Return user to previous view
PROCESS FLOW: 22

FIG. 22B

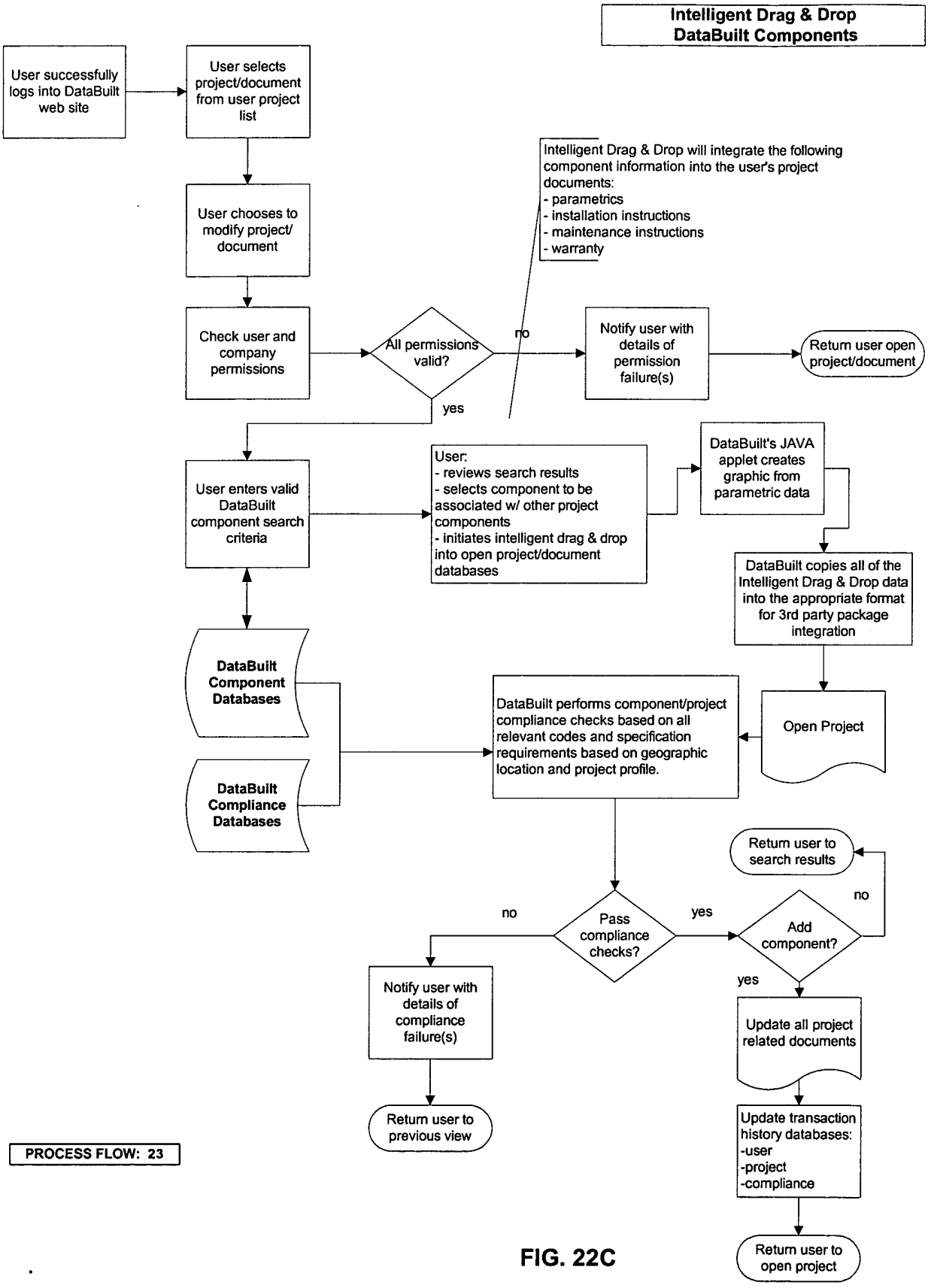
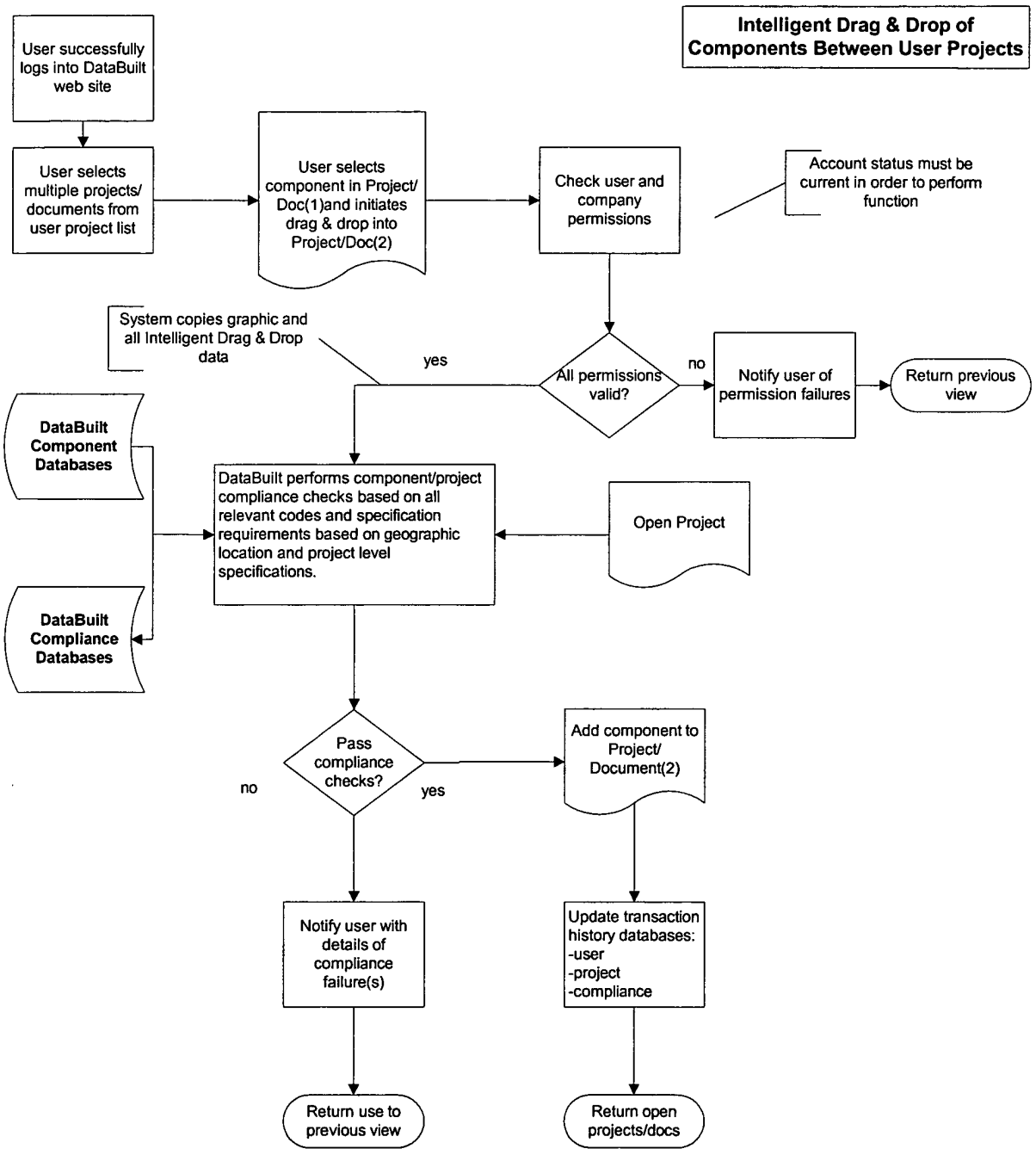
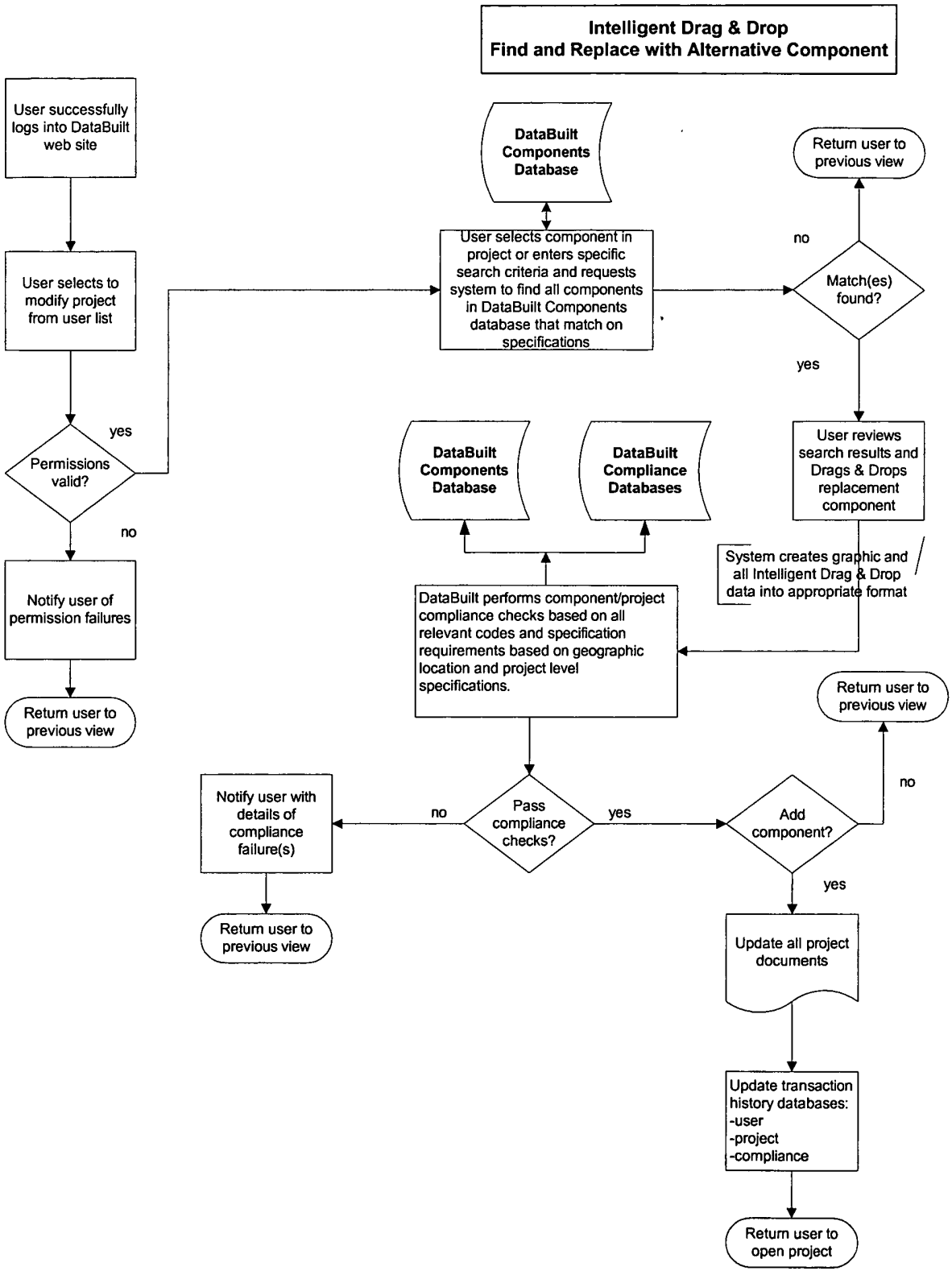

Intelligent Drag & Drop DataBuilt Components
User successfully logs into DataBuilt web site
User selects project/document from user project list
User chooses to modify project/ document
Check user and company permissions
All permissions valid?
no
yes
Notify user with details of permission failure(s)
Return user open project/document
Intelligent Drag & Drop will integrate the following component information into the user's project documents:
- parametrics
- installation instructions
- maintenance instructions
- warranty
User enters valid DataBuilt component search criteria
User:
- reviews search results
- selects component to be associated w/ other project components
- initiates intelligent drag & drop into open project/document databases
DataBuilt's JAVA applet creates graphic from parametric data
DataBuilt copies all of the Intelligent Drag & Drop data into the appropriate format for 3rd party package integration
DataBuilt Component Databases
DataBuilt Compliance Databases
DataBuilt performs component/project compliance checks based on all relevant codes and specification requirements based on geographic location and project profile.
Open Project
Return user to search results
no
yes
Pass compliance checks?
Add component?
no
yes
Notify user with details of compliance failure(s)
Update all project related documents
Return user to previous view
Update transaction history databases:
-user
-project
-compliance
Return user to open project
PROCESS FLOW: 23

FIG. 22C



PROCESS FLOW: 24

FIG. 22D



PROCESS FLOW: 25

FIG. 22E

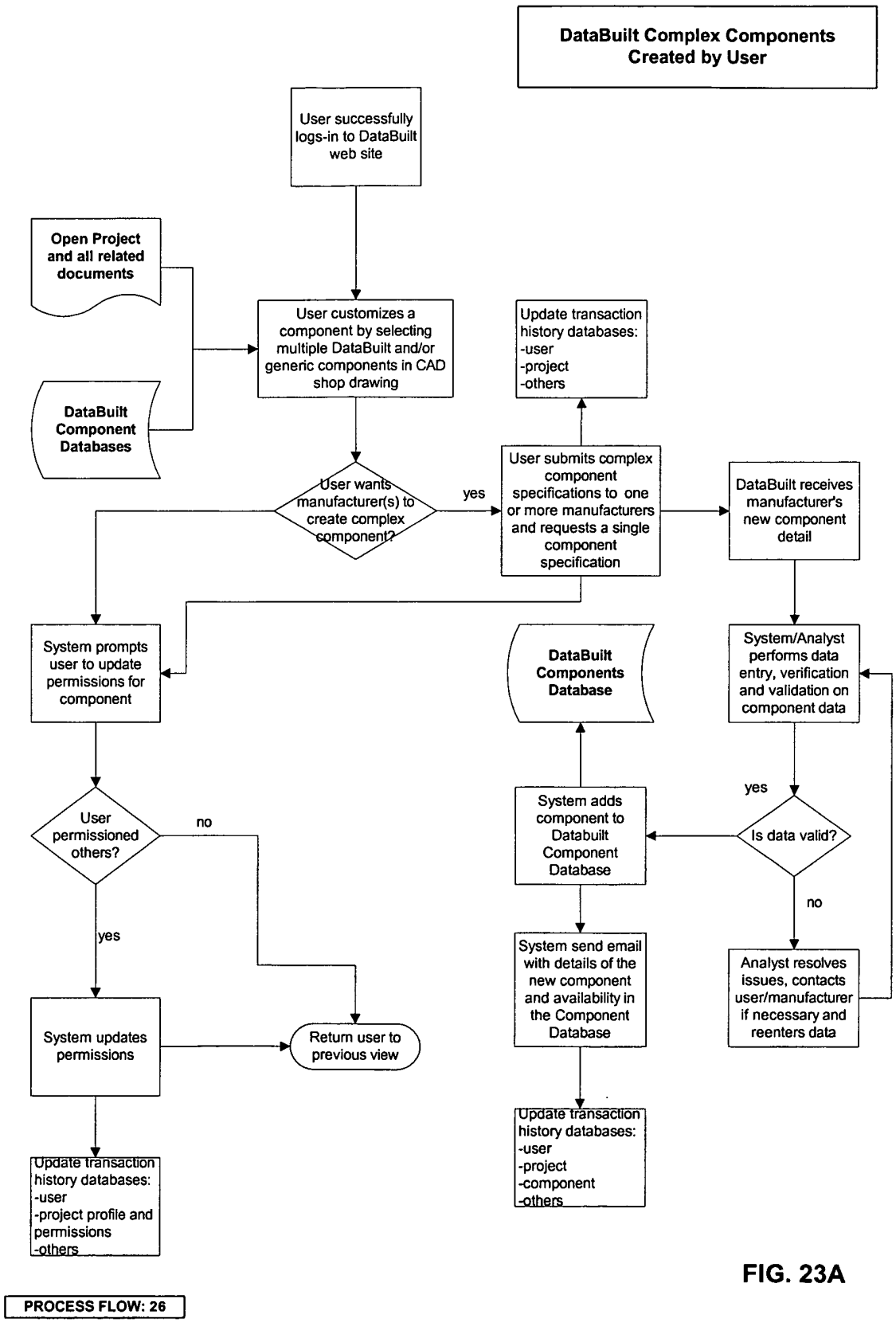

DataBuilt Complex Components Created by User
User successfully logs-in to DataBuilt web site
Open Project and all related documents
DataBuilt Component Databases
User customizes a component by selecting multiple DataBuilt and/or generic components in CAD shop drawing
Update transaction history databases:
-user
-project
-others
User wants manufacturer(s) to create complex component?
yes
User submits complex component specifications to one or more manufacturers and requests a single component specification
DataBuilt receives manufacturer's new component detail
System prompts user to update permissions for component
DataBuilt Components Database
System/Analyst performs data entry, verification and validation on component data
User permissioned others?
no
yes
System adds component to Databuilt Component Database
Is data valid?
yes
no
System send email with details of the new component and availability in the Component Database
Analyst resolves issues, contacts user/manufacturer if necessary and reenters data
System updates permissions
Return user to previous view
Update transaction history databases:
-user
-project
-component
-others
Update transaction history databases:
-user
-project profile and permissions
-others
PROCESS FLOW: 26

FIG. 23A

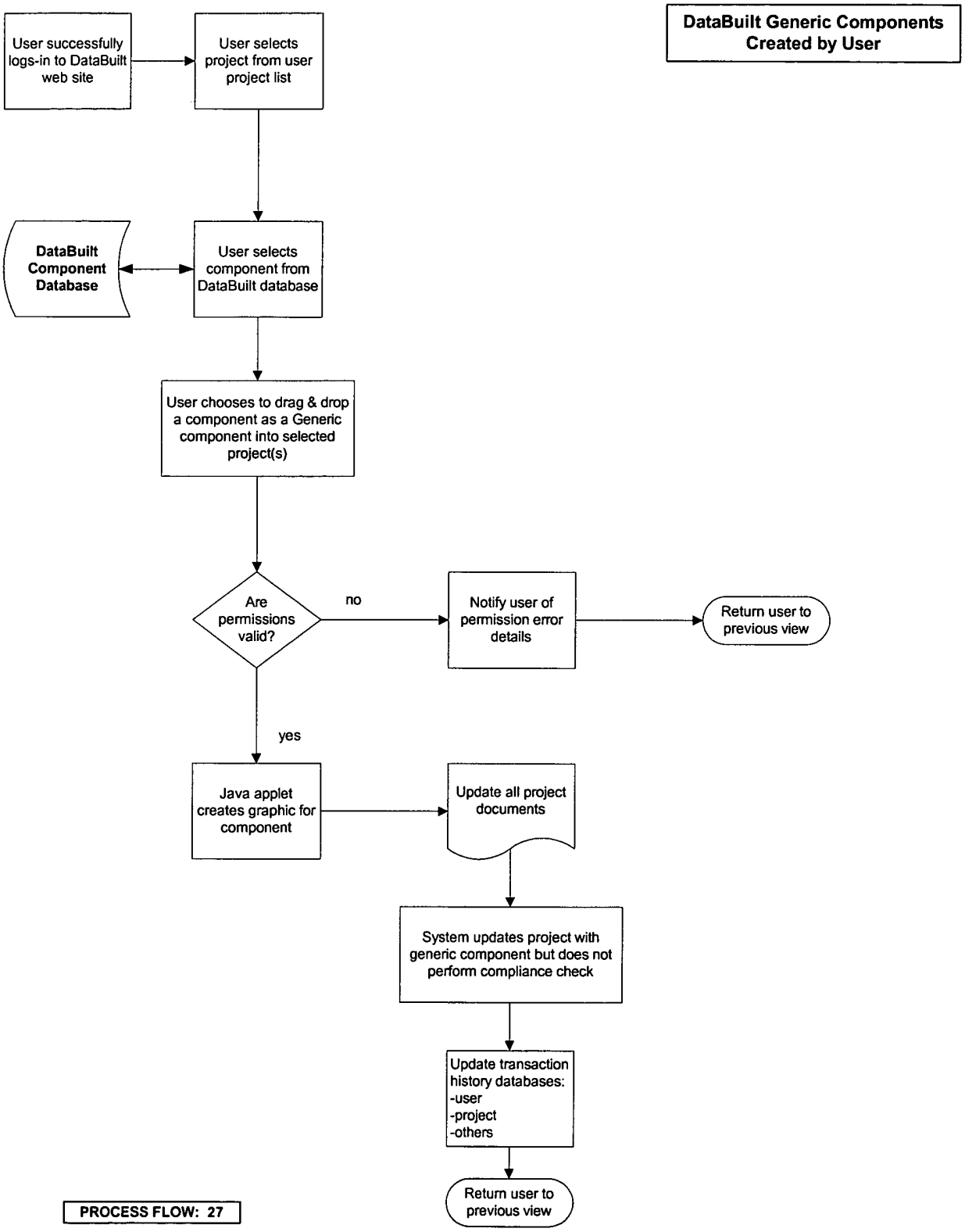

DataBuilt Generic Components Created by User
User successfully logs-in to DataBuilt web site
User selects project from user project list
DataBuilt Component Database
User selects component from DataBuilt database
User chooses to drag & drop a component as a Generic component into selected project(s)
Are permissions valid?
no
Notify user of permission error details
Return user to previous view
yes
Java applet creates graphic for component
Update all project documents
System updates project with generic component but does not perform compliance check
Update transaction history databases:
-user
-project
-others
Return user to previous view
PROCESS FLOW: 27

FIG. 23B

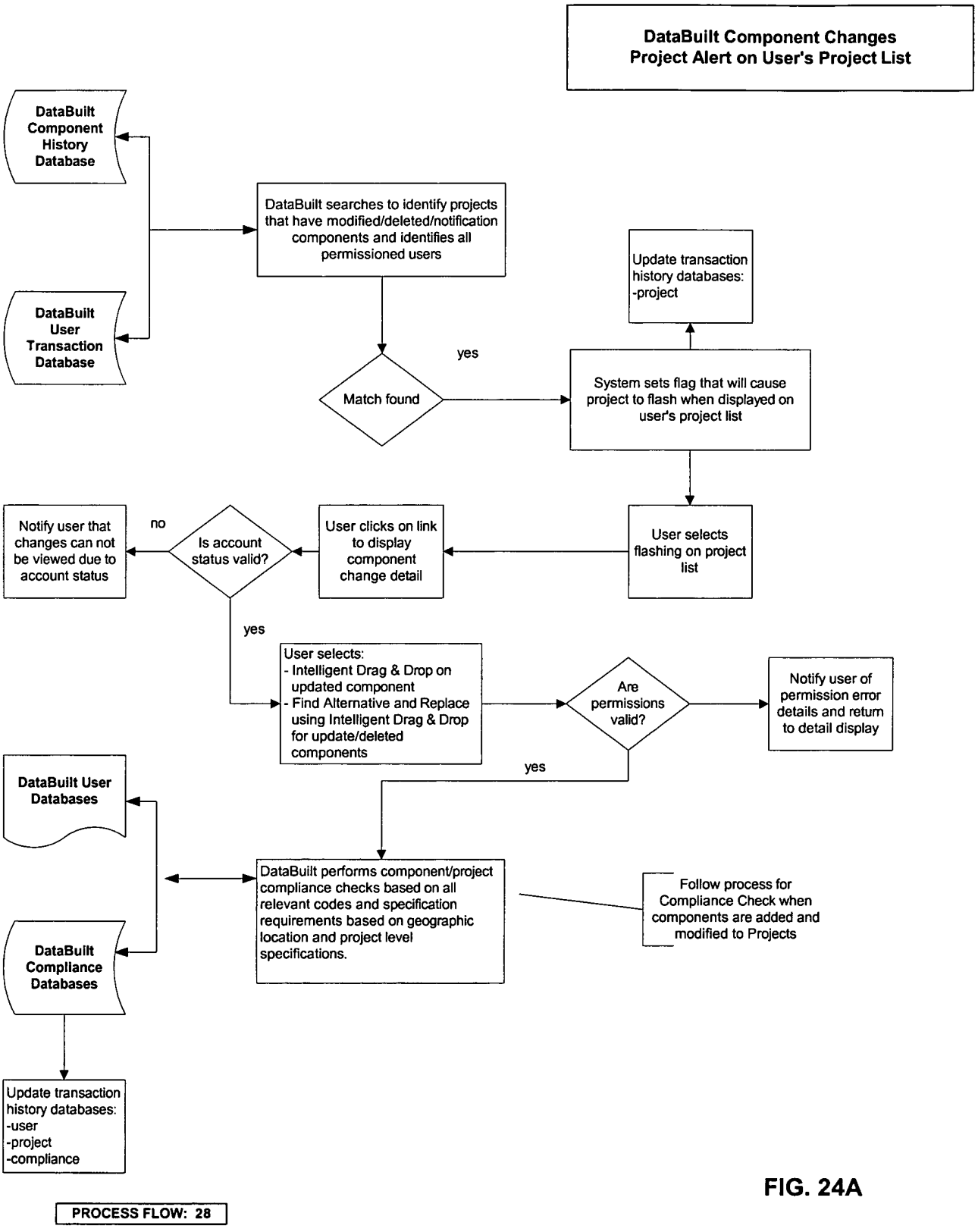

DataBuilt Component Changes Project Alert on User's Project List
DataBuilt Component History Database
DataBuilt User Transaction Database
DataBuilt searches to identify projects that have modified/deleted/notification components and identifies all permissioned users
Match found
yes
System sets flag that will cause project to flash when displayed on user's project list
Update transaction history databases: -project
User selects flashing on project list
User clicks on link to display component change detail
Is account status valid?
no
Notify user that changes can not be viewed due to account status
yes
User selects:
- Intelligent Drag & Drop on updated component
- Find Alternative and Replace using Intelligent Drag & Drop for update/deleted components
Are permissions valid?
Notify user of permission error details and return to detail display
yes
DataBuilt User Databases
DataBuilt performs component/project compliance checks based on all relevant codes and specification requirements based on geographic location and project level specifications.
Follow process for Compliance Check when components are added and modified to Projects
DataBuilt Compliance Databases
Update transaction history databases:
-user
-project
-compliance
PROCESS FLOW: 28

FIG. 24A

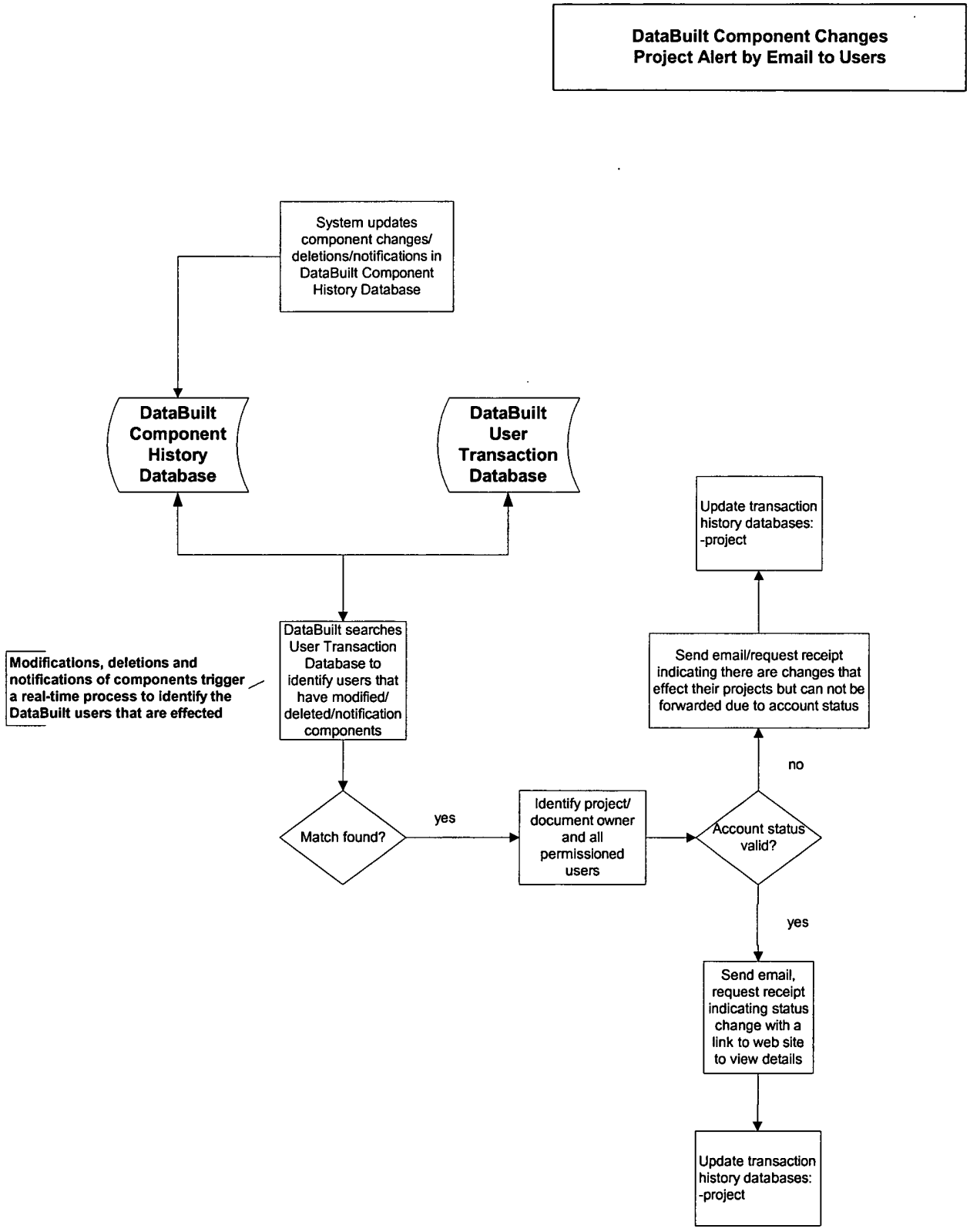

DataBuilt Component Changes Project Alert by Email to Users
System updates component changes/ deletions/notifications in DataBuilt Component History Database
DataBuilt Component History Database
DataBuilt User Transaction Database
Update transaction history databases: -project
DataBuilt searches User Transaction Database to identify users that have modified/ deleted/notification components
Modifications, deletions and notifications of components trigger a real-time process to identify the DataBuilt users that are effected
Send email/request receipt indicating there are changes that effect their projects but can not be forwarded due to account status
no
Match found?
yes
Identify project/ document owner and all permissioned users
Account status valid?
yes
Send email, request receipt indicating status change with a link to web site to view details
Update transaction history databases: -project
PROCESS FLOW: 29

FIG. 24B

1. Boot WebServers from Symmetrix
2. NAS for Scalable Rich Media Storage
3. Fiber Channel Switched Fabric
4. BCV's for Oracle
5. Storage for NAS

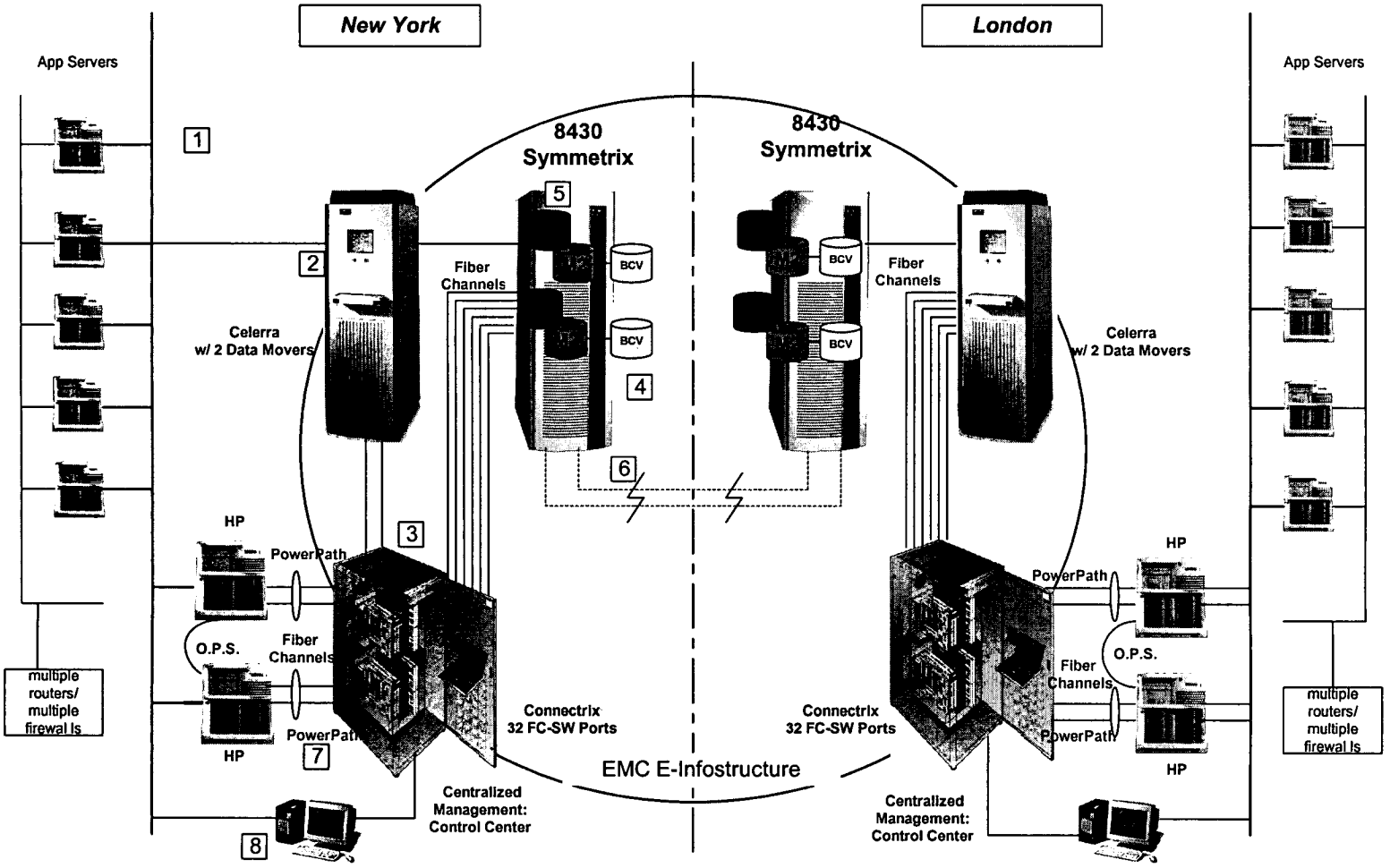
Legend

DataBuilt, Inc.

Information Storage Infrastructure

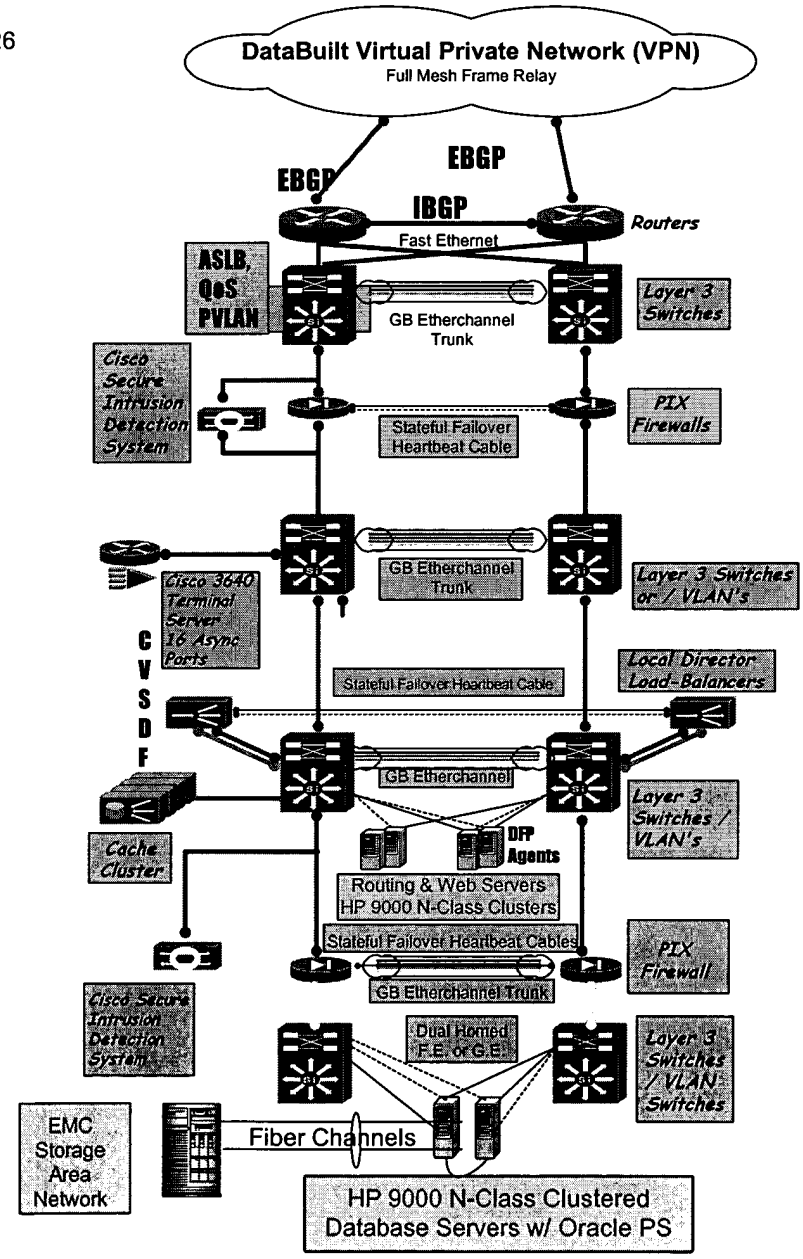
(Note: Database synchroniztion will be effected through DataBuilt proprietary methods- see LAN diagram)

Fig. 25



DataBuilt Data Center

Fig. 26



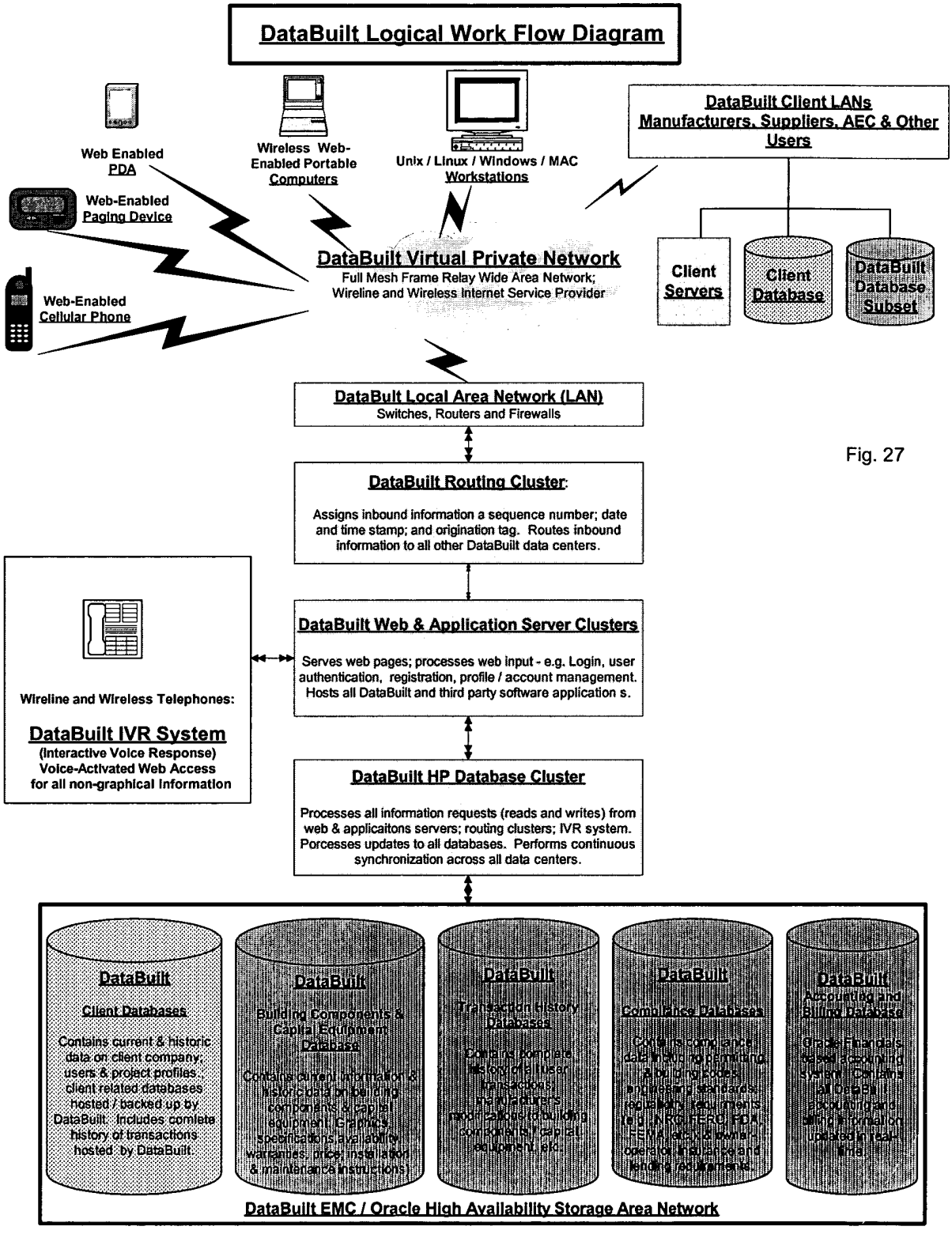


Fig. 27

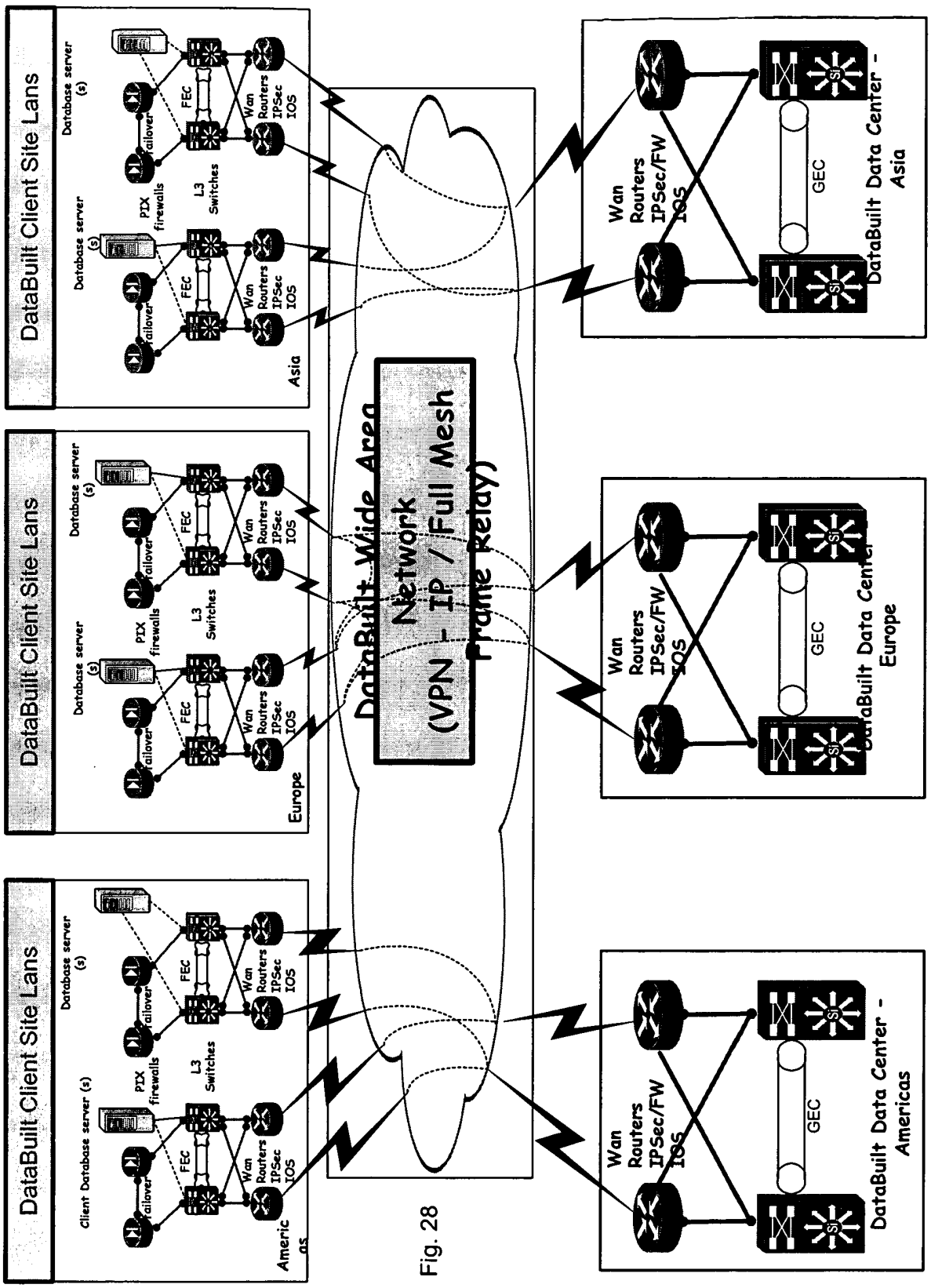

DataBuilt Client Site Lans
Database server (s)
Client Database server (s)
PIX firewalls
L3 Switches
FEC
Wan Routers IPSec IOS
Asia
Europe
Americas
DataBuilt Wide Area Network (VPN - IP / Full Mesh Frame Relay)
Wan Routers IPSec/FW IOS
GEC
DataBuilt Data Center - Asia
DataBuilt Data Center - Europe
DataBuilt Data Center - Americas

Fig. 28